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ABSTRACT

Mexican and Mexican American students enrolled in 58 bilingual settings (grades K-6) were studied to determine whether there was a relationship between student achievement and specific ethnic and profile characteristics of students and teachers. Five student-related independent variables were based on language dominance. Teacher-related independent variables were cooperative response, teacher training, ethnicity, and grade level taught. A significant relationship existed between cooperative response and achievement of Mexican and Mexican-American students in the areas of reading and mathematics. Mexican and Mexican-American students responded negatively to a cooperative teacher in the lower grades (K-2) and positively in the upper grades (3-6). Students responded positively to the competitive teacher in the earlier grades and negatively to the competitive teacher in the upper grades. Influence, both positive and negative, was at the 5% level of significance. A bilingual setting with a bilingual Chicano teacher yielded positive results in reading and mathematics. Systematic differences in social motivations and learning styles existing between ethnic student populations also seemed to contribute at a significant level. (Author/CM)

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UNIVERSITY OF CALIFORNIA
Santa Barbara

A COMPARISON OF ACHIEVEMENT OF MEXICAN AND MEXICAN-AMERICAN CHILDREN IN THE AREAS OF READING AND MATHEMATICS WHEN TAUGHT WITHIN A COOPERATIVE AND COMPETITIVE GOAL STRUCTURE

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Education

by

Juanita L. Sanchez

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December 1978

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DEDICATION

This work is dedicated to my parents, Señor Miguel V. Sanchez and Señora Margarita L. Sanchez, whose entire life has been one of "giving and not counting the cost."

5

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There are a number of people to whom I owe a debt of gratitude for their help, support and encouragement during the period of this doctoral study and preparation of this dissertation. The members of my committee were supportive throughout the process. The personal interest, support and encouragement from Dr. George Brown, Chairman, were a constant source of strength during the more difficult periods. I thank Dr. Gustavo Gonzalez for his invaluable suggestions and editing of this work.

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ABSTRACT

A Comparison of Achievement of Mexican and Mexican-American Children in the Areas of Reading and Mathematics When Taught Within a Cooperative and Competitive Goal Structure

by

Juanita L. Sanchez

The purpose of this study was to determine whether there is a relationship between student achievement and specific ethnic and profile characteristics of the student and the teacher. The focus of the study were Mexican and Mexican-American students enrolled in fifty-eight bilingual settings in grades K-6. Five independent variables related to the student and based on language dominance were identified.

"A" - non-English speaking student.

"B" - limited English speaking student.

"C" - bilingual and/or fluent English Spanish-surnamed student achieving below Q_2.

"D" - bilingual and/or fluent English Spanish-surnamed student achieving above Q_2.

"E" - fluent English non-Spanish surnamed student.

Four idenpendent variables in respect to the teacher were identified as follows:

Cooperative response. This was determined by teacher response as measured in the three instrumental design by Cordero (1989).

Teacher training/ Three groups were identified: Group One which received the confluent training: Group Two received the Didactic training: and Group Three served as the control group and received no training.

Ethnicity. The model made reference to the teacher being Chicano/Chicana.

Grade level. Grade level taught by teacher included in the study.

A multiple regression prediction technique was used and the independent variables included were only those which contributed to the model and were significant at the .. percent level. Post test scores on the California Test of Basic Skills in English reading and math were used as the dependent variable.

The operational hypotheses were:

H_1 There will be no relationship between the 1) teacher's cooperative self-perception, 2) cooperative response in a dilemma situation, 3) ability to provide cooperative learning opportunities in the classroom, and the achievement of Mexican students in the areas of reading and math.

H_2 There will be no relationship between the 1) teacher's cooperative self-perception, 2) cooperative response in a dilemma situation, 3) ability to provide cooperative learning opportunities in the classroom, and the achievement of Mexican-American students in the areas of reading and math.

Both hypotheses were rejected by the findings. A significant relationship was found between cooperative response and the achievement of Mexican and Mexican-American students in a bilingual setting in both the areas of reading and math. Mexican and Mexican-American students respond negatively to a cooperative teacher in the lower grades (K-2) and positively in the upper grades (3-6). The reverse then is held to be true: Mexican and Mexican-American students respond positively to the competitive teacher in the earlier grades and respond negatively to the competitive teacher in the upper grades. Influence, both positive and negative, was at the 5 percent level of significance.

A bilingual setting with a Chicano teacher who is bilingual yields positive results in the areas of reading and math. The findings further seem to indicate that the use of the language other than English within the bilingual setting is not the only factor that has a

positive influence in reading and math scores. Systematic differences in social motivations and learning styles existing between ethnic student population would seem to contribute at a significant level. The results of this research would seem to provide one more piece to the puzzle of the nature of relationships between educational variables.

The limitations as discussed within the study make conclusions and generalizations tentative. Nevertheless, the emergence of some possible trends could provide suggestions for areas for further research and also suggest changes be considered in the teacher training process. The task is left for those involved in future research to systematically explore and further ascertain whether the types of learning environment provided in schools is more or less effective given differences in the relative dominance of various motives.

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A COMPARISON OF ACHIEVEMENT OF MEXICAN AND MEXICAN AMERICAN CHILDREN IN THE AREAS OF READING AND MATHEMATICS WHEN TAUGHT WITHIN A COOPERATIVE AND COMPETITIVE GOAL STRUCTURE

Introduction

> America is God's Crucible, the Great Melting Pot where all the faces of Europe are melting and reforming! Here you stand, good folk, think I, when I see them at Ellis Island, here you stand in your fifty groups, with your fifty languages and histories, and your fifty blood hatreds and rivalries. But you won't be long like that brothers, for these are the fires of God you've come to--these are the fires of God--Germans, Frenchmen, Irishmen and Englishmen, Jews and Russians--into the Crucible with you all! God is making the American.[1]

So proclaims Israel Zangwill in his play, The Melting Pot (1909).

In its efforts to gain independence, the United States early evolved a social theory largely intended to create cultural patterns that would produce a distinctly "American personality - the theory of the 'melting pot.'" However, the United States persists, as far as its character as a nation is concerned, as one of the most heterogeneous nations in the world today in terms of its

cultural, racial, and social structure.

The "melting pot" theory assumes that a socio-cultural system can be created on a national scale and that it functions effectively for the majority of the population. "Melting pot" theory presumes a monolithic effectiveness in determining the socialization goals and practices of home, school and community. The social reality, however, is that there exists an astounding array of sociocultural systems. Persons belonging to these sociocultural systems feel they have a moral and legal right to remain identified with their own ethnic group, own values, language, home and community.[2] The Mexican-American, in particular, is unhappy with the "melting pot" philosophy which threatens to take away his identity and in the words of Luis Valdez of el Teatro Campesino, cries out its protest:

> They say this is a melting pot. I wonder who invented the melting pot. Horrible term! You melt people down, God! It shouldn't be that way. Our country should be a place where the individual is sacred. We have so many different sort of people. Every man has his own heart. Who gives you the right to cut out a man's heart and put it in a melting pot?

The unhappiness of the Mexican-American with the "melting pot" philosophy which has so long been used to fashion educational programs for our schools, is

chiefly due to the fact that these programs are committed to making the Chicano child over in the image of the Anglo middle-class child. The end result of this is two-fold: 1) both Mexican-American culture and the parent are excluded from the classroom; and 2) the conclusion is reached that Chicano culture is a hindrance to the child and must be eradicated rather than reinforced. This philosophy has had negative consequences for the child and his parents.[3] (See Appendix A and B.)

CHAPTER I

THE PROBLEM

The Plight of the Non-English Speaking Child. The most signal failure in American Education is the failure to provide equality of educational opportunity for the non-English-speaking child. The primary reason for this has been the erroneous assumption on the part of our school system that every child entering school is English-speaking and therefore ready to receive instruction through and in that language; ergo, the sole medium of instruction is English. The result has been an alarming dropout rate for the non-English speaking, as well as serious academic retardation for the majority of those who remain in school.[4]

In 1971, the Commission on Civil Rights sought to examine the degree to which schools in the Southwest were succeeding in the education of minority students, specifically the Mexican-American. They focused on school holding power, reading ability, grade repetition, overageness, and participation in extracurricular activities as indicators of the extent to which the school was succeeding or failing.[5]

4

Findings indicated that in California, school holding power was better than in the southwest as a whole. Even so, fewer than two out of every three Mexican-American students, or 64 percent, ever graduate. By the eighth grade, about 6 percent have already left school. (See Table I.)

TABLE I

School Holding Power: California

	Grade 8	Grade 12	Enter College
Anglo	100.0	86.7	46.9
Mexican-American	93.8	63.8	28.2
Black	97.3	67.3	34.0

More striking than the percentage loss in California, is the actual number of students involved. If the present holding power rate in the California survey area persists throughout the state, of the approximately 330,000 Mexican-American students in grades one through six in 1968, about 120,000 or 36 percent will fail to graduate from high school.[6]

As concerns reading achievement, the Mexican-American student in California is poor to begin with and does not improve in the higher grades. In California, contrary to findings in other Southwestern states,

reading achievement does not worsen appreciably as the children progress through school. However, more than half of all Chicano students in California survey area are already reading below grade assignment by the fourth grade. (See Appendix C.)

Upon graduation, 63 percent are reading below grade level and 39 percent have not advanced beyond the 10th grade in reading. Nearly one quarter, or 22 percent, of the 12th grade Mexican-American students in California are reading at the ninth grade level or lower. Concern is heightened by the realization that an estimated 36 percent of Mexican-Americans are gone by grade twelve because of low school holding power.[7]

Severe overageness is another condition in which the minority student often finds himself. In California is found the lowest proportion of Chicano students who are overage, as compared with the numbers found in other Southwestern states. One out of every 43 Mexican-American eighth graders are two or more years overage as compared to one out of every 125 Anglos. Much of this overageness is related to the "language problem" of Mexican-American students. In many schools of the Southwest, Mexican-American children are frequently required to repeat the first grade until they

are judged to have sufficient mastery of the English language to study their subjects in English.

Drop out rates and overageness would appear to be closely related. In the Southwest, the degree of overageness actually decreases in the secondary schools. The percent of Mexican-Americans who are overage drops from 9.4 in 8th grade to 5.5 in the 12th grade. (See Appendix D.) It is estimated that at least 41 percent of Mexican-American eighth graders who are overaged do not stay in school long enough to complete the twelfth grade.[8]

A National Problem. Scattered throughout the United States today there are approximately five million school children who are having difficulty in our public schools because they cannot communicate in the language being used to teach them. These children are not defective or learning impaired in any sense. Their difficulty stems from the fact that they come from a background in which English is not a primary language. The Mexican-American is our largest linguistic minority group (about 70 percent of the total non-English-speaking are Spanish-speaking), but the problem of educating the non-English speaking child includes many

language groups other than the Spanish-speaking. They range in ages from six to eighteen years and represent some thirty different language groups. The problem of educating the non-English-speaking child is of national concern. It is a problem not merely affecting a single language group or the Southwest, but it is a problem affecting the entire nation.[9]

Bilingual Education, a possible remedy. According to State Department of Education statistics, there are more than 200,000 students in the California public schools who speak no English or are of limited English speaking ability. Of this number only about 10 percent are currently receiving any form of instruction in a language other than English. Placing a child in a classroom which is conducted in a language he cannot understand denies him all but the barest pretense of equal educational opportunity. Children are forced to sit in classes day after day, week after week, and year after year, without being able to understand what is being said by their teachers and fellow students. As a result, such students drop out of school at an alarming rate.[10]

In the summer of 1975, the Office of Civil Rights of the Department of Health, Education, and Welfare issued a document entitled, "Task Force Findings

Specifying Remedies Available for Eliminating Past Educational Practices Ruled Unlawful Under Lau v. Nichols." The Task Force placed emphasis on bilingual education as one of the remedies to provide children of limited English-speaking ability with a substantive educational program.[11]

Bilingual education as defined by the U. S. Office of Education is:

> ... the use of two languages, one of which is English, as mediums of instruction for the same pupil population in a well-organized program which encompasses all or part of the curriculum and includes the study of the history and culture associated with the mother tongue. A complete program develops and maintains the children's self-esteem and legitimate pride in both cultures.[12]

The primary thrust of bilingual education lies within the cognitive and affective domains, rather than the linguistic realm. That is, the main purpose of bilingual education is not to teach language per se but rather to provide students with the opportunity to acquire knowledge and skills through the language they know best while at the same time adding English to their linguistic repertoire. While it is obvious that the linguistic dimension is basic and necessary to the concept of bilingual education, the primary goal of bilingual education is to allow children of limited

English-speaking ability to participate successfully in the educational process (Anderson and Boyer, 1970; Saville and Troike, 1971; von Maltitz, 1975). As early, or late, as 1955, UNESCO addressed the importance of using the native language (as opposed to another language) for instructional purposes; not only for cognitive development, but for affective development as well, since its use in school could only enhance the child's self-image and esteem for his own culture.

The cognitive, linguistic, and cultural goals of bilingual education are interrelated and are, in turn, closely linked to the affective goals. The importance of self-image may, in the final analysis, be the single most important outcome of bilingual education. Von Maltitz (1975) expresses this goal in the following manner:

> The concepts and practices involved in bilingual-bicultural education projects have as a major goal leading students to believe in themselves, in their basic worth as human beings, and in their native capacities. One important factor in reinforcing these pupils' self-confidence is having the language they speak acknowledged and respected; another is having as teachers, and models whom they can emulate, persons who use that language and stem from the same cultural community as their pupils.[13]

The teaching of subject matter in the home language and English is at the very core of bilingual

education. Learning of graphic skills in the second language is introduced only after the student has begun to understand and communicate in the language. The idea is that writing is a graphic representation of speech and speech must be present before the sound symbol relationships are taught. In bilingual education it is argued that the child should learn reading in his stronger language, since he has a command of its phonological and grammatical systems and a sizable vocabulary. This was the premise of the study carried out by Modiano (1966) in Chiapas, Mexico. At the end of three years, the Indian children who had been taught to read in their mother tongue had higher reading comprehension than those who were taught to read in Spanish. Contradictory results were reported by Lambert and Tucker (1972), who conducted the St. Lambert Experiment in Canada. In this study monolingual English-speaking children were taught only in French in Kindergarten and first grade, English language skills were introduced in the second grade, but subject matter was presented in French through the fourth grade. This experimental group was compared to a monolingual French control group and to a monolingual English control group which had learned English as a second language and French as a

second language, respectively. The results were as follows: At the end of first grade, the experimental class was at the same level in French reading and word discrimination as the French control group. Although they had not been taught English reading, they scored at the 50th percentile on national norms for English-speaking first grade children on tests of word knowledge and word discrimination and at the 15th percentile on reading skills. In the second grade they were reading as well as either the French or English control groups, a level they maintained throughout the other grades.

In her paper, The Use of Vernacular Languages in Education (1975), Engle surveyed 24 studies which attempted to determine whether a child will learn to read more rapidly in a second language if he is first taught to read in his primary language. She concludes that most of the studies provided no substantial evidence as to which approach is better. Engle, however, points to weaknesses in the studies themselves; that is, the variables in the studies were often not sufficiently controlled and thus the results were significantly affected.

The issues concerning methodology in a bilingual program do not differ greatly from those found in monolingual programs. The question of language use and the

incorporation of elements of the home culture into the instructional program are of prime concern and offer a point of departure from monolingual education. Although funds have been appropriated to create quality programs, the movement to teach children in two languages has had to face many obstacles. It would appear unfair to try to compare the progress made in bilingual education since 1968 with that made in monolingual education, which has a longer history, experience, and general support from the public.

Dulay, Burt, and Zappert (1976) have recently presented a summary of research findings in a poster format. According to the authors, 28 research studies and 172 evaluation reports were excluded from the poster because of serious weaknesses in research design. Thus the poster includes 66 findings from 9 research studies and 3 project evaluations. Although the number of actual studies is small, the authors conclude that:

> Contrary to widespread belief, the research conducted to date is not contradictory with regards to the effects of bilingualism and bilingual education on student performance. If one applies objective criteria for applicability and soundness of research design, most of the studies show a significant positive effect, or a nonsignificant effect, on student performance. Of the 66 findings reported here, only 1 (1%) was negative; 38 (58%) were positive, and 27 (41%) were neutral.14

A report from Santa Fe Public Schools on Title VII Bilingual Programs (1978) shows significant gains in the areas of Reading and Math for students who had been in a bilingual program for three, four, and five years, respectively. (See Appendix E and F.) The report is from a seven year Title VII project comparing four groups:

1. the national sample achieving at 50th percentile.
2. a control group (non-treatment) from schools within the district.
3. a longitudinal treatment group--students enrolled in the program three to five years.
4. a non-longitudinal treatment group--groups of students who were enrolled in the bilingual program in a given year, but who did not qualify for inclusion in the longitudinal group.

In the majority of comparisons, the longitudinal bilingual group was superior to both the control group and the non-longitudinal bilingual group.[15]

Similar results were reported from the Title VII Bilingual Program in Oxnard, California (1978). The 1976-1977 ESEA Title VII Evaluation Report from Oxnard Elementary Schools reported reading and math achievement for limited-English speakers (LES). These students started as non-English (NES) and limited English speakers (LES) and had been enrolled in the bilingual program

for three years. As part of the report, the following question was posed: Are the reading and math scores of NES/LES students enrolled in Oxnard for three years significantly greater for Title VII and non-Title VII students?

> The 1976-1977 ESEA Title VII Evaluation report reported reading and math achievement for LES students. These students had been enrolled in the program for three years. As a response in part to the AIR report, the Coordinator requested a study of Title VII versus non-Title VII students.
>
> The comparison group of non-Title VII students was selected on the basis of the following critical attributes: 1. attended the same schools as had Title VII students; 2. attended non-Title VII classes; 3. started and maintained attendance in Oxnard Schools for three or more years; and 4. categorized as LES by means of the child's name at registration (such as Roberto instead of Robert), place of birth, and parents' names and occupations. Reading and math achievement were measured by the CTBS. End-of-year raw scores were tabulated for 3rd grade LES students for 1975-1976 and 1976-1977.
>
> The results showed statistically significant differences between Title VII and non-Title VII students in both reading and math for both years (see Table 12). The mean scores were as predicted, that is for students entering the program at the same time, Title VII LES students demonstrate greater achievement than non-Title VII students. This result was found for both years. Figures 1 and 4 using scale and grade equivalent scores display the results more succinctly. (See Appendix G and H.)[16]

The schools from which the target population was identified (Title VII and non-Title VII students) have district wide testing only in Third and Sixth grades. For purposes of comparison only third grade test scores were available for non-Title VII students. However, data were available on fourth grade Title VII students for the 1976-1977 school year. An addendum reporting these scores was made to the first report:

> The Oxnard 1977-1978 Evaluation Report reported statistically significant differences between 3rd grade LES students in Title VII and non-Title VII classes for reading and math. At the request of the Coordinator, additional data pertaining to Title VII students are presented in Figures 1 and 2.
>
> Figure 1 and 2 display scale scores and grade equivalent scores in reading and math. In Figure 1 the achievement gains between the end of 2nd and 3rd grades for the same students are excellent for reading (19 months) and good for math (9 months).
>
> Figure 2 displays 3rd and 4th grade end-of-year test scores for the same youngsters, that is, it shows the progress of 3rd graders when they were in project as 4th graders. Particularly important is that while 3rd graders performed below grade level expectations, as 4th graders, they approached grade level in reading and exceeded grade level in math. (See Appendix I and J.)[17]

Title VII Basic Programs were originally meant to be demonstration programs for purposes of evaluation, but the reality of the situation at the project level is that they have become service programs; i.e. provide

educational services to children of greatest need and on an as needed basis. The practice in the four year funding period was to move students out of the program as soon as they were judged to be "functional." The numbers of students continuing in the program for an extended period of time was greatly reduced. Consequently, a limitation of the Oxnard Title VII study as well as the Santa Fe Title VII study is the small sample size identified for the longitudinal treatment groups.[18]

The positive findings in the aforementioned studies are encouraging and should pave the way for more work in the area. Additionally, one can turn to other countries where bilingualism and bilingual education are a fact of life (Christian and Sharp, 1972):

> Bilingualism never seems to have impaired the intelligence of the social and intellectual elite of European countries where use of more than one major language is an important prerequisite for social position. Only where bilingualism is associated with a high degree of literacy in any two languages is it recognized as a form of achievement rather than limitation. Educational measures almost inevitably represent this cultural value.[19]

Summary

The "melting pot" philosophy, though still prevalent in the minds of many American citizens, is being challenged. The United States is a culturally

and linguistically pluralistic society whether mainstream society is willing to recognize it or not. Diversity, whether it is based on lifestyle, culture, or language, must be seen as a strength--as an affirmation that we are secure in our self-identity as citizens of this country and in the belief in the very tenets on which the nation was founded.

There is nothing within the philosophy of bilingual education that diminishes the reality that English is the official language of the United States. There is nothing in the philosophy of bilingual education to support the fear that it encourages political, linguistic, or cultural fragmentation of the nation. There is nothing to support the notion that linguistic and cultural diversity is categorically linked with political alienation.

To date, bilingual education has been viewed as a program for "disadvantaged" students. The knowledge of another language, which should be viewed as a strength, is seen as a deficiency and the transitional model has been emphasized as the most efficient means to move the student into the mainstream and have him achieve in only one language. Like educators in other parts of the world where it is the monolingual who is uneducated,

bilingual educators support the concept of maintaining and encouraging the intellectual development of individuals who function in two cultures and are fully competent in two languages: they understand, speak, read and write English and another language.

It is important for critics of bilingual education who claim that bilingual education and bilingualism are harmful to realize that there is little in terms of serious, well-designed, and carefully controlled research that supports this viewpoint. What little good research is available indicates that in most cases bilingual education is either beneficial in terms of scholastic achievement or is neutral--in which case the individual has the added advantage of emerging from the experience as one who has increased his ability in two languages.

Finally, the issue is no longer whether Bilingual Education should be offered as part of the curriculum for non-English and limited-English speaking students, but rather how best to implement this approach and enable these students to receive the maximum benefit.

CHAPTER II

DEFINITION OF TERMS USED

Mexican American. In this paper, the term Mexican-American refers to persons who were born in Mexico and now hold United States citizenship or whose parents or more remote ancestors immigrated to the United States from Mexico. It also refers to persons who trace their lineage to Hispanic or Indo-Hispanic forebearers who resided within Spanish or Mexican territory that is now part of the Southwestern United States.

Chicano. The term Chicano refers to a person born in the United States whose language dominance may range from monolingual Spanish, through bilingual Spanish-English, to monolingual English. The Chicano is a person who has become aware of his cultural heritage and the beauty and sophistication of being bilingual and bicultural. At the moment, the Chicano is expressing a social movement, a political stance, while his culture is evolving. For purposes of this paper, Chicano and Mexican-American will be used interchangeably.[20]

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Anglo. All caucasians who are no longer identified with their respective ethnic groups.

Melting pot philosophy. The philosophy that emphasizes change in the child to fit the educational system which seeks to produce a distinctly "American personality."

Bilingualism. Bilingualism refers to the knowledge and use of two languages by the same person.

Biculturalism. Biculturalism means knowing and being able to operate successfully in two cultures. This means knowing two modes of behavior. It means knowing the beliefs, the values, the customs, and the mores of two different groups of people.

Culture. For purposes of this paper, culture will include six categories which have a direct bearing on child development.

a. "Formal" culture: These would be the products of artistic endeavor, achievements of intellectual and artistic genius, deeds of heroic valor, concepts of lofty spirit, modes of significant thought and racial or ethnic vigor.

b.	"Deep" culture:	The thoughts and actions, the concerns and hopes and worries, the personal values, the minor vanities and the half-serious superstitions, the subtle gradations of interpersonal relationships as expressed in actions and words, the day-by-day details of life as it is lived by the group today or as it was lived in previous generations.[21]
c.	Situational culture:	The life struggles, successes and failures of present day members of the child's ethnic group as they seek human fulfillment in dynamic interaction with members of other cultural groups with whom they co-inhabit the land.
d.	Language and communication:	The communicative legacies and ancestral group(s) both for information and recreational purposes. Also, the idiosyncrasies of speech and non-verbal communications, which may differ from those of other groups enough to cause miscommunication, embarrassment or disapproval.
e.	Humanistic values:	Subtle differences in which values similar to those of white America may be expressed as a consequence of Spanish, mestizo or creole, or contemporary ethnic group influences.
f.	Miscellaneous other historical and heritage topics:	The men and women of yesterday; their ideas, actions, aspirations and accomplishments and how these bear on the present day life of members of the same ethnic

group(s) and those with whom they interact.[22]

Traditional Community. In this paper a traditional community refers to a Mexican-American community whose members are most identified with the sociocultural premises of Mexican culture.

Atraditional Community. An atraditional community refers to a Mexican-American community whose members are most influenced by mainstream-American middle-class values.

Dualistic Community. A dualistic community refers to a Mexican-American community influenced equally by both cultures: Mexican and mainstream-American middle-class cultures.[23]

School holding power. This indicates the quantity of schooling a child receives. In general, the greater number of years of education a student obtains, the more likely he will be able to realize his potential abilities.

Severe Overageness. A student who is two or more years overage for his grade level.

Bilingual Education. A system of instruction which uses two languages, one of which is English.

Partial Bilingual Education. This includes speaking, reading and writing skills developed in both languages. Material related to culture and history is taught in the language the pupil understands better.

Full Bilingual Instruction. Basic language skills are developed and maintained in both languages. Instruction in required subject matter or classes is provided in both languages in addition to culture and history.

Bilingual Bicultural Education. A system of instruction which uses two languages, one of which is English, as a means of instruction. It is a means of instruction which builds upon and expands the existing language skills of each participating pupil. This instruction shall include:

1. Daily instruction in English, language arts, listening, speaking, reading and writing;
2. Language development in the pupil's primary language;
3. Reading in the pupil's primary language;
4. Selected subjects taught in the primary language; and,

5. Development of an understanding of customs and values of the cultures associated with the languages being taught as well as an understanding of the history and culture of California and the United States.

Bilingual Setting. A classroom designated by a school district as providing assistance for the limited and non-English speaking student.

Individual Learning Program. Any program of instruction for limited English-speaking pupils in which instruction is offered in a manner consistent with the United States Supreme Court Decision in Lau v. Nichols (414 U.S. 563), The Equal Educational Opportunities Act of 1974 (20 U.S.C. Sec. 170, et. seq.), the federal regulations promulgated pursuant to such court decisions and federal statutes (Section 5762.2, A.B. 1329).

Goal Structures. For purposes of this paper, goal structure will be used to specify the types of interdependence existing among students. It specifies the ways in which students will relate to each other and to the teacher in working toward the accomplishment of instructional goals.

Cooperative Goal Structures. When students perceive that they can attain their goal if, and only if,

the other students with whom they are linked can obtain their goal (Deutsch, 1949). If one student achieves the goal, all students with whom the student is linked achieve the goal.

Cooperative social motives:

Altruism ...	the purpose is to maximize the gains of a peer.
Equality ...	the purpose is to avoid relative gains for self and other.
Group enhancement ...	the purpose is to obtain joint gains.

Competitive Goal Structure. When students perceive that they can obtain their goal if, and only if, the other students with whom they are linked have failed to achieve their goal. Competitive interaction is the striving to achieve one's goal in a way that blocks all others from achieving the goal.

Competitive social motives:

Rivalry ...	the purpose is to avoid absolute gains for other.
Superiority ...	the purpose is to obtain relative gains for self.[24]

Individualistic Goal Structure. This structure exists when the achievement of a goal by one student is unrelated to the achievement of the goal by other

students; whether or not a student achieves her goal has no bearing upon whether other students achieve their goals. Usually there is no student interaction in an individualistic situation, since each student seeks the outcome that is best for himself regardless of whether or not other students achieve their goals.[25]

Cognitive Learning Style. As used in this paper, cognitive learning style refers to individual consistencies in information seeking and information processing across a variety of problem solving situations.

Field-dependent. A mode of perception whereby the subjects' perception is strongly influenced by the context or background. The organization of the field as a whole dominates perception of its parts. An item within a field is experienced as fused with the organized ground.

Field-independent. A mode of perception whereby a subject is able to overcome the influence of a surrounding perceptual field. The person is able to perceive items as discrete from the organized field.[26]

Affective Outcomes of Education. This refers to the feeling or emotional aspects of experience and learning.

Cognitive Outcomes of Education. This refers to the conceptual activity of the mind in knowing an object or intellectual functioning.

Confluent Education. A term used to describe a new educational theory and practice being developed with the aim of integrating cognitive and affective domains in teaching and learning.

Confluence. The internal psychological process often accompanied by physiological correlates and overt behaviors, which comprises the "flowing together," or integration of thought and feeling around one shared point of concentration. Confluence, above all, is an experience and not just a concept. It is something that actually happens in a person, and as such, it has psychological and physiological correlates that can be identified and described.[27]

Locus of Control. The term refers to those causes to which one attributes success or failure. Those who attribute success or positive reinforcement to their own actions such as ability or effort, are said to be internally oriented. Conversely, those who attribute failure or negative reinforcement to other than their

own actions, such as task difficulty or luck, are said to be externally oriented.[28]

CHAPTER III

HISTORY OF THE BILINGUAL EDUCATION MOVEMENT

In the past decade, there has been a widespread awakening to the plight of the non-English speaking and an attempt to rectify it. On January 2, 1967, President Lyndon B. Johnson signed into law the Bilingual Education Act (P.L. 90-247) which was to be an amendment to the Elementary and Secondary Education Act of 1965 (P.S. 8910). Fifteen million dollars were authorized for fiscal year 1968; 30 million for fiscal year 1969; and 40 million for fiscal year 1970. Additional authorizations include 90 million for fiscal year 1971; 100 million for fiscal year 1972; and 135 million for fiscal year 1973.[29] Actual appropriation for fiscal year 1977 totaled 115 million dollars.[30]

The Bilingual Education Program is designed to meet the special educational needs of children three through eighteen years of age who have limited English-speaking ability and who come from environments where the dominant language is other than English. The concern is for children in this target group to profit from increased educational opportunities through the use of

their mother tongue as a medium of instruction.[31]

Following the Bilingual Education Act (P.L. 90-247) of 1967, there have been five major court decisions which have been related to Bilingual Education and the effort to effect change in the educational programs for non-English speaking students.

Lau v. Nichols. The landmark case in the field of bilingual education is Lau v. Nichols. The action originated in San Francisco, California during March of 1970. After four years of litigation, it was finally resolved by the Supreme Court of the United States. It is worthwhile to study the struggle in this case from the beginning because it should lay to rest many of the arguments that are posed by those who would resist bilingual education programs and at the same time show that the nature of these programs is still unclear.

The court action was brought against the San Francisco Unified School District by thirteen non-English speaking Chinese-origin students on behalf of the approximately 3,000 Chinese speaking students in the school district. These students alleged that they were effectively denied an education because they could not comprehend the language in which they were being taught.

It was further claimed that this deprivation of an education was "dooming these children to become dropouts and to join the roles of the unemployed."

They argued that the failure to teach them bilingually should be prohibited on two legal grounds. First, that not to do so was a violation of their Constitutional right to "equal protection under the law." Second, that it was a violation of the Civil Rights Act of 1964.

The first court to consider this action was the United States District Court in San Francisco. It was here that the magnitude of the problem for these particular students became all too painfully obvious. The suit was not brought as a matter of course, but was a last effort in a long community struggle to have a grievance redressed. Indeed the seriousness of the students' position was admitted by the school district. It was agreed that in 1970 there were 2,856 Chinese-speaking students in the school district who needed some kind of remedial attention and that of these, 1,790 were not getting any help at all. Of the 1,066 who were being helped, two-thirds were getting only special instruction on a part time basis in the form of a fifty minute class each day. Furthermore, only 260 of these

students were being taught by a teacher who was bilingual in Chinese and English. In other words, almost 2,000 children were sitting in class every day comprehending almost nothing of what was being said. Certainly they could not be expected to compete with the children who could understand English. This was little surprise to the school district. In 1969 it admitted as much by saying:

> When these (Chinese-speaking youngsters) are placed in grade levels according to their age and are expected to compete with their English-speaking peers, they are frustrated by their inability to understand the regular work.... For (these) children, the lack of English means poor performance in school. The secondary (student) is almost inevitably doomed to be a dropout and (become) another unemployable (person) in the ghetto.[32]

In April of 1973, a study adopted by the Human Rights Commission of San Francisco showed that 3,457 Chinese-speaking students were seriously deficient in their use of English and that no more than 1,707 of them were receiving any kind of help. The problem was continually growing and had been with the San Francisco community for decades, largely ignored and clearly unresolved.

When confronted in District Court, the school district argued that these students were not being discriminated against. The reasoning used was that they

were being taught in the same facilities and by the same teachers at the same time as everyone else. Thus, since everything was the same for all students, there was no discrimination, and therefore, no violation of anyone's right to equal protection. In effect, their position was that the schools had no obligation to recognize and respond to the demonstrable communications difficulties encountered by these non-English-speaking students.

The District Court ruled in favor of the school district, agreeing that all that was required was equal access to the school facilities and not the opportunity to derive equal benefits from such access. Another point repeatedly stressed by the court was that this problem was of recent origin and had been caused by a large influx of Chinese immigrants between 1965 and 1970. There was indeed an increase in the number of immigrants in recent years; however, the school district's own records had shown that the problem had existed for years and had shown no signs of ceasing to exist.

The trial court's decision was unacceptable to the students involved. They took their case to the United States Circuit Court of Appeals for the Ninth Circuit. They made the same arguments, offered the same justifications and asked for the same relief. The

Circuit Court chose to affirm the decision of the District Court. This decision was handed down on January 8, 1973. The Circuit Court accepted all of the District Court's rationales for the decision. They did, however, go on to make some observations on the case which were even more unfavorable to the students. As the plaintiff's counsel Edward H. Steinman notes,

> ... the court callously observed that the problems suffered by the children were not the result of laws enacted by the State... but the result of deficiencies created by the (children) themselves in failing to learn the English language.[33]

The court also observed that:

> Every student brings to the starting line of his educational career different advantages and disadvantages caused in part by social, economic and cultural background, created and contributed completely apart from any contributions by the school system. That some of these may be impediments which can be overcome does not amount to a denial by the (School district) of educational opportunities ...should the (district) fail to give them special attention.[34]

The students after hearing the decision of the Circuit Court took the last step and appealed to the Supreme Court. Here finally they received some satisfaction for their efforts.

First, the Supreme Court laid to rest the argument that equal access to the facilities provides equal treatment and equal educational opportunity. To

quote the Court:

> Basic English skills are at the very core of what these public schools teach. Imposition of a requirement that before a child can effectively participate in the educational program he must already have acquired these basic skills is to make a mockery of public education. We know that those who do not understand English are certain to find their classroom experiences wholly incomprehensible and in no way meaningful.[35]

Having provided a reason for its actions, the Court went on to clarify the grounds for the decision which was based entirely on the rationale as provided by Section 601 of the Civil Rights Act of 1964. That section reads as follows:

> No person in the United States shall, on the ground of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.[36]

This section was a mandate by Congress to make sure that federal monies were spent in a non-discriminatory fashion.

The government groups involved were also given, through Section 602, the right to make decisions as to how the funds should be spent and to design adequate safeguards in order to protect the funds from misuse. Thus, the government agencies are empowered to issue reasonable guidelines through which compliance must be met. If compliance is not obtained, then the federal

agency can withhold these funds. The Court went on to clarify the term discrimination as something which has a discriminatory effect even though no intent is present.

The reasoning was perfectly applicable in this case since the school district was the recipient of a large sum of federal funds. By accepting these funds, the School district had contractually agreed to all the regulations of the Department of Health, Education, and Welfare, which were issued pursuant to Section 601 and Section 602 of Title VI of the Civil Rights Act of 1964. They also had agreed to take any measure necessary to implement the agreement. The School district was clearly not complying with a validly imposed regulation.

The Supreme Court ruling did not, however, grant the students all they had requested. The court did not specify the course of action to remedy the problem. The plaintiffs had asked for bilingual teachers and for all subjects to be taught bilingually. The decision did not rule on this request. Instead, it sent the case back to the District Court for the determination of what constitutes "appropriate relief."

Serna v. Portales. The impact of Lau was tremendous and influenced the rulings in four lower court decisions in particular. The first of the cases

was Serna v. Portales Municipal Schools which was decided on July 17, 1974. This was a case which all parties concerned admitted was exactly like Lau. Therefore, the Circuit Court simply followed and interpreted the language of the Supreme Court in reaching a decision. This decision discusses three areas:

> What constitutes an acceptable remedy?
> Who can propound such a remedy?
> When will such a remedial program be required?

The first question is answered by the court in its statement,

> A student who does not understand the English language and is not provided with bilingual instruction is therefore effectively precluded from any meaningful education.[37]

This is the first instance of a court expressly requiring bilingual education.

The question of who could propose a remedial bilingual education plan was raised when the New Mexico State Board of Education and the appellants argued that the Trial court's decision to impose a particular plan of instruction constituted an unwarranted and improper judicial interference in the internal affairs of the school district. The Court replied that:

> ...(once) a right and a violation have been shown, the scope of a district court's equitable powers to remedy past wrongs is broad, for breadth and flexibility are inherent in equitable remedies...under Title VI of the Civil

> Rights Act of 1964 appellees have a right to bilingual education...we believe the trial court, under its inherent equitable power, can properly fashion a bilingual bicultural program which will assure that Spanish surnamed children receive a meaningful education.[38]

Thus the authority of a court to prescribe a curriculum is clearly established. It is important to know that in this case the plan upheld was not completely bilingual. It consisted of having special periods set aside each day for bilingual-bicultural instruction.

The third area explored was under what conditions a program would be required. This court followed the reasoning of Blackman in saying that "numbers are at the heart of the case."[39] Unfortunately, there is still no real explanation of when the numbers will be so few as to make unnecessary the need for the program. The Court says, "only when a substantial group is being deprived of a meaningful education will Title VI violation exist." The question remains, what is a substantial number?

Aspira v. Board of Education. The next important lower court decision is Aspira of New York, Inc. v. Board of Education of City of New York. This case was concerned with problems of determining who was entitled to receive special bilingual instruction.

The question is important not only in determining the size of the program, but also in determining its quality and substance. The type of testing done to find out who will participate in the program is in many ways a guide to what the program will be like. The United States District Court of New York fully realized this when it ruled on the Aspira controversy.

The court stated that all students should be given a test to determine their proficiency in the use of the English language. Those students who fall below the twentieth percentile and who come from an Hispanic background should be given another test to determine their proficiency in Spanish. If their percentile score in Spanish is higher than in English, they should receive bilingual instruction. Some of the specific language of the court is quite illuminating in reference to the court-perceived goals of bilingual education. First the court comments:

> As has been noted, the assertedly "ideal" view of plaintiffs - to test all Hispanic students in Spanish and give bilingual program to all who do better in Spanish than in English - is not accepted. In addition to the reasons noted earlier, we may observe that the decree is not meant to enroll for bilingual instruction all who are more fluent in Spanish than in English. The setting and the goal remain a course of English language instruction so those who can now participate "effectively" in

> English are outside the plaintiff class, whatever their relative fluency in Spanish might be.[40]

Thus the court has said that all students who score above the twentieth percentile in English are presumed competent in English and therefore need no bilingual help and are entitled to none. Further, the court says that those scoring below the twentieth percentile are entitled to receive help if and only if their Spanish capability is greater than their English capability. It should also be pointed out that the court was well aware of the limitations of this procedure. They simply observed that as of yet nobody has designed a better system for distinguishing those who do and do not need a special language program to make possible a meaningful education.

Keyes v. School District No. 1, Denver, Colorado. The Keyes decision was not primarily concerned with bilingual education. The case came about because of the segregated school zones in Denver and was eventually decided by the United States Supreme Court. As in the Lau case the Supreme Court remanded the case to the District Court in order that a remedy might be developed. It is from this District Court opinion handed down on April 8, 1974 that the relevant language comes.

As a part of the program for desegregation an education specialist, Dr. José A. Cárdenas, designed special classes for Chicano students who were having difficulty learning through English only instruction. The court elaborates saying:

> One educational element called for by the proposed Cárdenas plan is the utilization of bilingual training, particularly in the low elementary grades. Currently many elementary school Chicano children are expected not only to learn a language with which they are unfamiliar, but also to acquire normal basic learning skills which are taught through the medium of that unfamiliar language. Some provisions for effecting a transition of Spanish-speaking children to the English language will clearly be a necessary adjunct to this court's desegregation plan.[41]

This opinion is important in that it goes beyond just saying that these children must receive bilingual instruction in English. It seems to further require that the students also receive instruction in other subjects in their native tongue, until they can effectively compete in English.

Rios v. Read. It is not enough, however, to have a bilingual program in quantity if there is no quality of instruction. In the context of a motion to compel a school district sued under Lau to disclose its students' records, the opinion in Rios v. Read probed the obligations imposed on school authorities toward

their non-English speaking students. Plaintiffs sought information concerning achievement levels, tenure in special ESL pullout classes, reading scores and attendance rates in an effort to assess whether the programs of the school district of Patchogue-Medford, Long Island, effectively promoted academic progress and second language fluency. Of the two principal defenses raised by the district in its effort to withhold the records, one was based on Lau. Arguing that Lau requires only that a school district take affirmative steps to meet the needs of non-English speaking students, the district maintained that an investigation of facts directed toward the effectiveness of those steps was irrelevant.

The district court acknowledged that the school district provided a remedial program for English-language-deficient children, that a bilingual department existed in the district and that New York State's policy is to encourage bilingual education, but it nevertheless rejected the notion that any affirmative steps pursued by a school district satisfy Lau:

> It is not enough simply to provide a program for disadvantaged children or even to staff the program with bilingual teachers; rather, the critical question is whether the program is designed to assure as much as is reasonably possible the language deficient

> child's growth in the English language. An inadequate program is as harmful to a child who does not speak English as no program at all.[42]

For the first time, a district court amplified the hold of Lau by making reference to the legislative history of the federal Bilingual Education Act of 1974, in which Congress recognized the far-reaching implications of Lau and emphasized the importance of bilingual education in the academic and personal growth of the language disadvantaged child. The court observed that increasing the quantity of bilingual programs was meaningless without a concommitant emphasis on the quality of instruction. The court summed up its position by stating:

> To put a final perspective on the defendants' position, it could hardly be argued that if a school district was found to violate the standards of Lau v. Nichols because it had failed to provide any bilingual education for language disadvantaged children, a court would be required to accept without scrutiny whatever remedial program the school district then proposed simply because the district now could claim that it was taking "affirmative steps."[43]

For this district court, then, Lau is not a carte blanche; the standard of effectiveness governs for purposes of both liability and remedy when a school district is charged with offering inadequate programs.

In light of Lau and the court decisions that followed requiring bilingual education as the remedy to overcome the deprivations suffered by limited and non-English speaking children, California adopted a board policy in 1976 which states that:

> To comply with the Lau v. Nichols Supreme Court decision, schools should make provisions for instruction in a language understandable to each limited English speaking student until such student can adequately understand instruction in English. Therefore, each limited English speaking student in the public schools should have, in addition to or in combination with other educational opportunities, educational services which:
>
> A. are taught in a language understandable to the student.
> B. built upon the student's primary language
> C. teach the student English.

Chacón-Mascone Bilingual Bicultural Act of 1976 (A.B. 1329). The Chacón-Mascone Bill further amplifies the requirements of the state board policy. One of the three specified bilingual education models must be offered in any school which has ten or more limited English speaking pupils. Districts may choose among four alternatives: 1) partial bilingual instruction, 2) full bilingual instruction, 3) bilingual bicultural education, or 4) individual learning program.[44] Assembly Bill 1329 includes all Public Schools regardless of

whether they receive federal funding or not.

> Each limited-English-speaking pupil enrolled in the California Public School System in Kindergarten through Grade 12 shall receive instruction in a language understandable to the pupil which recognizes the pupil's primary language and teaches the pupil English (Section 5767.4).

Assembly Bill 1329 is also specific as to the requirements for the teachers in bilingual classrooms (Section 5767.6).

Assembly Bill 65 (Greene). Assembly Bill 65 is a significant piece of legislation enacted on September 17, 1977 and implemented on July 1, 1978. This legislation moved toward the solution of the Serrano v. Priest financial inequity problem for the support of public schools, and provides significant curriculum and instructional elements. It calls for school level plans which include instruction and auxiliary services to meet the special needs of non-English speaking or limited-English speaking pupils, including instruction in a language such pupils understand.[45]

Summary

In this Chapter the writer has summarized the history of bilingual Education through a review of the legislation and court decisions affecting bilingual

education, beginning with the Bilingual Education Act (P.L. 90-247) in 1967 to the landmark Supreme Court decision Lau v. Nichols in 1974, to Assembly Bill 65 in California which took effect in September, 1978. Four lower case decisions are highlighted on which the Lau decision had particular impact and which have strengthened the case for the need of bilingual education as a necessary component of the educational system.

The number of Title VII bilingual programs in 1975-1976 are a far cry from the first year of funding. These figures were obtained from the Dissemination and Assessment Center for Bilingual Education (DACBE) Directories of Title VII ESEA Bilingual Education Programs: 1969-1976 (See Table II).

TABLE II

Yearly Total of Projects, Children, and Languages in Bilingual Education Projects

No. of Projects	Year	No. of Students	No. of Languages
76	1968-1969*	33,732	14
63	1969-1970	22,802	14
137	1970-1971	45,227	16
169	1971-1972	63,324	16
216	1972-1973	100,391	24
211	1973-1974	128,767	30
271	1974-1975	147,523	34
406	1975-1976	206,452	47

*Figures obtained from files of the National Consortium for Bilingual Education.

The overwhelming majority of bilingual education programs involve English and Spanish as languages of instruction. This comes as no surprise to anyone, given the latest survey of languages other than English spoken in the United States. In Spring, 1976, there were an estimated 27,985,000 persons in the United States living in households where languages other than English were spoken. (See Appendix K.)

The rapid growth of the Spanish-speaking population in the United States, particularly in the Southwest and in large urban centers such as New York, Chicago, Miami, and Seattle, has brought almost an automatic equating of bilingual programs with the Spanish language. According to the Dissemination and Assessment Center for Bilingual Education (1975-1976), 284 of the 406 projects funded under Title VII dealt with the Spanish language. The remainder involved 46 other languages, including Arabic, Chinese, Choctaw, Hebrew, Portuguese, Russian, Vietnamese, Yaqui, and Yup'ik.

This linguistic diversity underscores the pluralistic makeup of the country which has only recently come to be valued. Even though the overriding features of bilingual education today are compensatory or transitional in nature, the recognition of languages

other than English can be seen as a step forward.

CHAPTER IV

IMPORTANCE OF THE STUDY

The mandate to improve the achievement level of Mexican-American children by providing them with equitable and quality education stems from a history of legal action, federal legislation for compensatory and bilingual education and the increasing recognition of the need to deal with the cultural attributes of the students.

Since the Bilingual Education Act (P.L. 90-247) was enacted in 1967, Bilingual Education has become a reality. The American school is at last making room for ethnicity. In Bilingual Education the teacher capitalizes on the language the child brings to school. The students have already internalized the sound patterns of a language and their written work is based on those sounds. If these sound patterns are English, the beginning instruction is in English; if they are Spanish, the instruction is in Spanish. Simultaneously with such instruction, the second language is introduced systematically. At the beginning this instruction is for a rather small percentage of the time with large blocks of time for learning in the native language. In this

phase of instruction, the sound patterns of the second language are taught before proceeding to the written language. Following this procedure, the children learn two languages well. The student's cognitive development is continued while learning a second language. Also, the trauma a child must undergo when he finds himself in a world where his language and culture are suddenly denied, is avoided.

Hispanics make up about 5 percent of the population in the United States and comprises the second largest minority group. The achievement of Hispanic students is "consistently" below national averages in reading, science, math, social studies and career development, according to the National Assessment of Education Progress (NAEP). For example, nine-year-olds who are of Spanish origin scored 10.8 percentage points below the national average in reading and 7.8 points below in math. At age 17, Hispanics were even further behind, scoring 11.4 points below average in reading and 14.4 points below in math. Also, by age 17, NAEP said, more than one-third of Hispanic persons ages 14-24 are dropouts, compared with only one in 10 in total population. The tremendous disparity between Hispanic and Anglo achievement suggests "at least for Hispanic

children, the melting pot theory does not work," says Jose Martinez, a program evaluator for the California Department of Education, and Shirley Muñoz Hernandez, a researcher at Columbia University's Bilingual General Assistance Center. "Hispanic children do have different needs," they said, "and these needs have not been addressed."[46]

There is a concern at present that bilingual education in its newness has barely concentrated on keeping its head above water and in most cases has presented the same curriculum originally geared to the middle-class Anglo student, the only difference being that it is offered in the non-English language. The concern lies in whether just using the non-English language is sufficient or whether there are other factors within the educational system of the majority culture that could be affecting the achievement level of the Chicano child.

In light of these concerns and in an effort to address the "different needs" Hispanic children would seem to have, the investigator focuses on the learning and motivational styles of Hispanic students and the effects, positive or negative, on the achievement levels of Hispanics within the areas of reading and math. Of

this Hispanic group, the investigator is specifically concerned with the Mexican and Mexican-American student. Including information of this nature in the curriculum for the training and/or retraining of teachers, the educational system in a pluralistic society would have advanced a step in meeting the needs of these students.

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CHAPTER V

REVIEW OF THE LITERATURE

The review of the literature will be in the areas of cooperation and competition, cognitive learning styles, and confluent education. Research in these three areas will be essential in interpreting the findings of the present study.

First the writer will review the literature in the areas of cooperation and competition in general, then focus on the findings involving Mexican-American students which addresses the question of whether cooperation is the preferred goal structure for these students. The writer will then review the research by Ramírez and Castañeda who will identify two cognitive learning styles significantly affected by culture: field dependent and field independent. A cooperative goal structure within a classroom would appear to support a field dependent signitive style of learning. Finally, the third area will be a review of the literature on confluent education and how this evolving paradigm looks toward meeting the needs of the individual in its interpersonal, intrapersonal and extrapersonal areas. A classroom designated as a "bilingual

setting" utilizing a cooperative goal structure which would respond to the field dependent cognitive style of the Chicano student would in itself be confluent, since the emphasis is not only an acquisition of cognitive skills, but a response to the whole man in his mode of learning.

A. AFFECTS OF COMPETITIVE AND COOPERATIVE GOAL STRUCTURE ORIENTATION

There has been extensive coverage of cooperation and competition within different age groups. Competition has been found to increase anxiety in students. Haines and McKeachie (1969) found that students in a competitively structured discussion were more anxious, less self-assured, and showed more incidences of self-oriented needs; students in a cooperatively structured discussion were described as less tense and more task oriented.[1] The increased anxiety in a competitively structured discussion would support findings by Smith, Madden and Sobel (1957) that cooperatively oriented discussion groups retained the material produced and were more productive than the competitively oriented groups. The assumption would be that the anxiety produced by the competition hinders productivity and retention. Raven (1963) and Crombag (1966) in their

work with triads found that with students in competitive goal structures communication was closed, ineffective and inaccurate, whereas in a cooperative goal structure communication was open, effective and accurate. Deutsch (1949) observed similar results in his work with groups and group process. He found competitive situations more stressful for certain kinds of personalities than cooperative situations. The consequences of stress were often restructuring of goals and a withdrawal, with the result being that the withdrawn individual would no longer compete.

Dunn (1966) and Burkholdt (1974) found that group members sharing rewards for cooperative behavior showed an increase in mutual contributions, helping behavior and positive student performance. Shaw (1958) found that although competitive situations arouse stronger motivation to achieve than do cooperative situations, stronger motivation results in poorer performance as measured by accuracy scores which are particulary susceptible to interference by task irrelevant responses resulting from threat to self esteem.

Woodarski, et. al. (1972) found that cooperative goal structures promoted studying behaviors and

decreased apathetic, non-studying and disruptive behavior on the part of students. Cooperative work patterns increased arithmetic performance in classroom settings and were more beneficial in problems requiring originality. Coleman (1957) found that the school by placing each student in competition against all his classmates for scholastic position, can effectively impede the process of education. The student is faced with a conflict of motivation: To be one of the fellows and not work too hard in school, or to work hard in school and ignore the group. A boy or girl can be oriented to academic achievement, or to being popular, but it is hard to be both.

Positive interpersonal relations are necessary both for effective problem solving in groups and for general classroom enjoyment of instructional activity. The psychological safety and security necessary for open exploration of instructional tasks is based upon feelings of being accepted, liked and supported by fellow students. The research strongly supports the proposition that cooperative goal structures encourage positive interpersonal relationships characterized by mutual liking, positive attitudes towards each other, mutual concern, friendliness, attentiveness, feelings of obliga-

tion to other students, and desire to win the respect of other students (Phillips and D'Amico, 1956; Julian and Perr, 1967; Haines and McKeachie, 1967; Bryant and Crockenberg, 1974). The majority of these same studies demonstrate that competitive goal structures have a negative effect on interpersonal relations among students.

Competition in and of itself is not reprehensible, but rather inappropriate competition, and most of the competition in classrooms would seem to be inappropriate.

> Competing with and defeating an opponent is one of the most widely recognized aspects of interpersonal interaction in our society. The language of business, politics, and even education is filled with "win-lose" terms. One "wins" a promotion or a raise, "beats" the opposition, "outsmarts" a teacher, puts competitors "in their place." In an environment that stresses winning, it is no wonder that competitive behavior persists where it is not appropriate.[2]

On the other hand, sharing, helping, communicating and mutual concern are all aspects of cooperation and research supports its use in a large number of situations.

American Education System: Competitive Goal Structure Oriented. American society is permeated by a version of Social Darwinism expressed in quotes as "its a dog-eat-dog world" or this is a "survival of the

fittest society." To prepare the student to "compete and survive in the business world" an interpersonal competitive goal structure has been traditionally used in American Education in which students are expected to outperform their peers. There is evidence that most students perceive school as being competitive. In the Johnson, Johnson and Bryant (1973) study, the sixth grade boys were shown pictures of cooperative and competitive classroom activities. Seventy percent of the boys perceived their classrooms as being competitive structures.

Research findings show that 1) American children are more competitive than children from other countries (Madsen and Shapira, 1970; Madsen, 1971; Kagan and Madsen, 1971, 1972; Nelson and Kagan, 1972); 2) American children become more competitive the longer they are in school or the older they become (Nelson, 1970; Madsen, 1971; Madsen and Connor, 1973; Nelson and Kagan, 1972); 3) Anglo-American children are more competitive than are other American children, for instance, Mexican-American and Afro-American children (Kagan and Madsen, 1971; Madsen and Shapira, 1970); and 4) urban children are more competitive than are rural children (Madsen, 1967; Shapira and Madsen, 1969; Kagan and Madsen, 1971, 1972;

Miller and Thomas, 1972; Nelson and Kagan, 1972). In reviewing the research of Millard C. Madsen and his students, Nelson and Kagan (1972) state that the tendency for children to compete in conflict of interest situations often interfered with their capacity for adaptive, cooperative problem solving. They found that American students so seldom cooperate spontaneously on the experimental tasks that it appears that the environment provided for these children is barren of experiences that would sensitize them to the possibility of cooperation. Not only do American children engage in irrational and self-defeating competition, but the Anglo-American child, in comparison with children from other countries, is willing to reduce his own reward in order to reduce the reward of a peer.[3] The socialization of American children into competitive attitudes and orientations is so pervasive that Staub (1971) found that American children often believe that helping a person in distress is inappropriate and is disapproved of by others. In a competitive goal structure there can be only one winner, the vast majority of students will experience failure. In a traditional competitive classroom, the purpose of classroom evaluations is to rank students from the "best"

to the "worst." In most classrooms fairly stable patterns of achievement exist so that the majority of students always "lose" and a few students always "win." A student may spend twelve years in public schools being confronted daily with the fact that he is a "loser." If the student desires to "win," the daily frustration of failing may be a concomitant of schooling. A sense of helplessness, worthlessness, and incompetence may result from such a situation.[4]

Holt (1969) states that for the student the most interesting thing in the classroom is the other students, but in a competitive goal structure, the student must ignore them, act as if these other students, all about him, only a few feet away, are really not there. He cannot interact with them, talk with them, smile at them, often he cannot even look at them. In many schools he cannot talk to other students in the halls between classes, in many schools he cannot talk to other students during lunch. American children are highly competitive, and schools promote this irrational competition. Holt states that this is a splendid training for a world in which when you are not studying the other person to figure out how to do him in, you pay no attention to him.[5]

Cooperation/Competition And The Mexican-American Child. Having established that the American school system is competitively oriented, the writer will now examine the research dealing with cooperation and competition as it refers to the Chicano child. Until 1969 the Mexican-American student seems to have been non-existent and therefore a very limited number of studies had been done in this area.

Madsen (1967) found highly significant differences between children from different subcultural settings in Mexico. Rural village children and lower socioeconomic urban children behaved in a much more cooperative manner on an experimental task than did urban middle-class children. (See Figure 1.)

The results of experiments conducted by Madsen and Shapira (1970) with three United States ethnic groups and a group from a Mexican village indicated a high degree of nonadaptive competitiveness among children of the United States ethnic groups and the dramatic contrast with the Mexican village children. The often aggressive, wild, shouting matches among the children in the United States who were so desperately trying to cross their circles in the cooperation board developed by Madsen (see Appendix L), was in total

contrast to the rather slow, quiet and deliberately cooperative behavior of Mexican village children. It should be noted, however, that urban children in Mexico (Madsen, 1967) performed on the cooperative board in much the same manner as the competitive group in the United States.

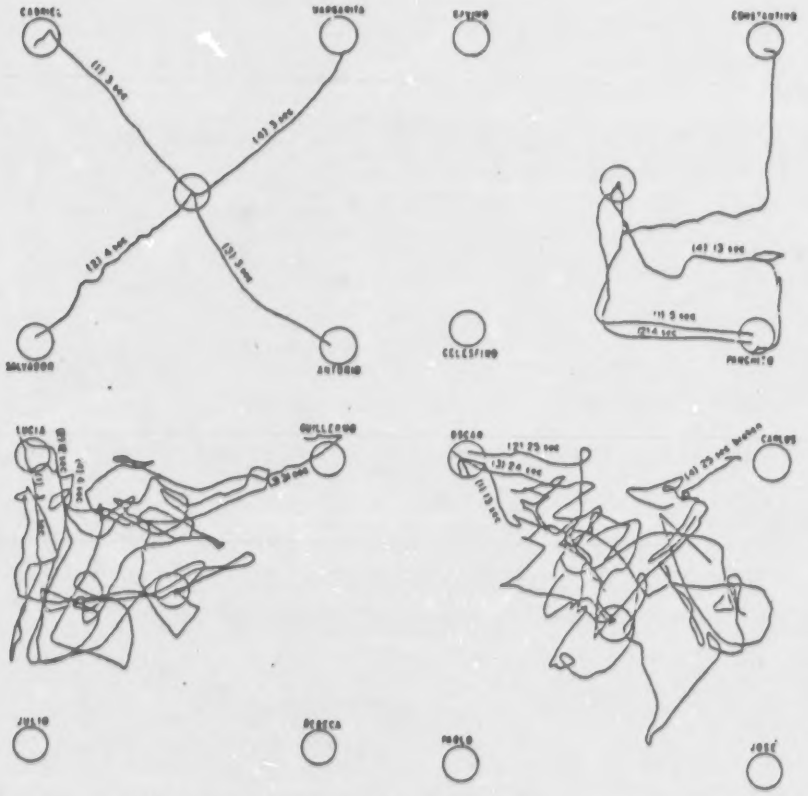

Figure 1. (A) Upper left and (b) upper right are typical records of the rural and urban poor group. (C) lower left and (d) lower right are typical records of the urban middle-class group.[6]

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Madsen and his collaborators (Kagan and Madsen, 1971; Madsen and Shapira, 1970) conducted studies on the competitive orientation of Mexican-American and Anglo-American children. Their findings indicated that differences exist and may vary as a function of age level. In the first of these studies, the investigators reported that seven-to-nine-year old Mexican-American children behave less competitively and hence more successfully in a task requiring coordination to achieve a goal than Anglo-American or Black American children of comparable ages. In the second study, the researchers reported that in a task requiring one of the players to "step aside" in order for the other to win on a given trial and to take turns over time for both to win, differences in instructional orientation, age and culture produced different levels of cooperation. It was found that a) an "I" orientation produced less cooperation than the "we" one; b) four-to-five-year-olds were more cooperative than seven-to-nine-year-olds; c) seven-to-nine-year-old Mexican-American children were more cooperative than Anglo-Americans of the same age. In similar studies with Mexican children, these researchers have found that both Mexican and American children display increasing competition with age, but Mexican

children, particularly those that live in rural areas, are significantly less competitive than American children of comparable ages (Kagan and Madsen, 1972; Madsen, 1971).

In these studies no attempts had been made to determine the institutions and child rearing practices responsible for the observed cultural differences. The fact that Mexican children from an urban area exhibited the same competitiveness as the competitive groups in the United States would indicate that the cooperative behavior of the Mexican village children represents a specific subcultural rather than a broad national characteristic (Madsen, 1967).

Variables Affecting the Motivational and Learning Styles of Mexican American Children. It was the work of Ramírez and Castañeda (1974) that attempted to identify variables within Mexican-American communities which might influence not only motivational styles, but learning styles as well. In identifying these variables which they claim contribute in varying degrees to contemporary changes and characteristics of Mexican-American communities, they devised a classification system for these communities.

The first type they referred to as a traditional community. Mexican-Americans living in traditional communities are more affected by Mexican culture than by the majority American culture. Ramírez and Castañeda (1974) refer to four major value clusters within the traditional Mexican-American value system.

1. Identification with family, community and ethnic group.
2. Personalization of interpersonal relationships.
3. Status and role definition in family and community.
4. Mexican Catholic ideology.[7]

Individuals reared in traditional communities are encouraged to identify with their families and to remain so identified throughout most of their lives. Interpersonal relationships in traditional Mexican American communities are characterized by openness, warmth, and commitment to mutual dependence. Considerable emphasis is placed on the individual's skill in relating to others, and on the development of sensitivity to others' feelings and needs.

The most important characteristic of interpersonal relationships is the commitment to mutual help that results in cooperative achievement among members of traditional communities. There exists in

the community the unspoken knowledge that the interest of one is that of all, and consequently, any assistance offered will be repaid. That is, the concerns of the community, of family and friends are viewed by the individual as his own. Achievements are rarely viewed as individual achievements; but rather as the result of cooperative efforts.[8] Striving for individual gain is interpreted as selfish. More specifically, competition between individuals is thought to detract from common and shared objectives.

The influence of Mexican Catholic ideology is strong in the traditional community. It emphasizes respect for convention. Specifically, it emphasizes self-control, for many emotions and behaviors of children are viewed as potentially selfish and anti-social. The goals are adherence to rules of the family, community and ethnic group; suppression of rebelliousness, and subordination of individual needs and interests to those of family, community and ethnic group.

Mexican Catholic ideology also warns of the constant threat of sin. The world outside the family, community, and ethnic group is seen as potentially dangerous and capable of leading children into sin unless proper guidance is provided by adults. Guilt is

also an important aspect of Mexican Catholic ideology in child socialization. If children rebel against convention or do not perform in accordance with the expectations of their parents or other important adults, their actions are considered transgressions against God.

Mexican-Americans who comprise traditional communities either belong to or come from a rural community. Their exposure to the Anglo culture has been minimal and they retain close cultural ties with Mexico.

Mexican-Americans of dualistic communities feel pressure to incorporate values of the middle class. However, this is counterbalanced by similar pressures to maintain identification with traditional Mexican values. In the dualistic community, children are socialized to have a strong identification with the family, but identification with the community and ethnic group is usually not as pronounced as in traditional communities. Children achieve cooperatively with members of their peer groups, but are competitive and cautious in interpersonal relationships outside their own peer groups. Peers are emulated more than adults and self-control and adherence to convention are less important than in traditional communities. Needs and

interests of the individual acquire as much importance as those of the family.

Values related to Mexican Catholicism have little influence on child socialization in the dualistic community. Protestant ideology and, with it, mainstream American values have had an impact on these communities, making the ideas and practices of Mexican-American Catholic ideology seem outmoded and authoritarian. Young people from dualistic communities question the values of their parents and institutions. In general, the more "middle-class" Mexican-Americans living in this community have incorporated more of the majority American values.

The atraditional community is characterized by little or no ethnic cohesiveness. Ties between families are superficial and usually involve little or no commitment for mutual help. The extended family of persons living in the atraditional community live neither in the community nor in close proximity to it. Children are socialized by the nuclear family, and identify with the family but not with the community.

The atraditional community, like the dualistic community, is ethnically heterogeneous, with an Anglo-American majority. Often Mexican-Americans tend to

deemphasize their ethnic identity and English is the primary language of both adults and children. Ethnic history is often completely unknown and unavailable in atraditional communities. Consequently, children have no opportunity to identify with Mexican-American culture.

Children in atraditional communities are socialized to achieve an identity independent of the family, community and ethnic group. Their interpersonal relationships are competitive and academic achievement is more highly valued than are social skills. Children are more likely to criticize social convention and give more attention to their needs and interests.

Mexican Catholic ideology plays little part in child socialization in atraditional communities. Consequently, respect for convention is emphasized only very early in the child's life and then only minimally.[9]

The question can be asked whether the classification system devised by Ramírez and Castañeda is too simplistic in its accommodation to the extensive diversity in this ethnic group.

Ramírez and Price-Williams illustrated differences in motivational styles by analyzing stories told by Mexican-American and Anglo-American children. Utilizing the School Situation Picture Stories Technique

(SSPST) and analyzing for need achievement, they found Mexican-American children scored higher in need achievement for the family. Stories told by Mexican-American children indicated that they wanted to achieve so that their parents would be proud of them or so that their family might benefit from their achievements. In contrast, stories told by Anglo-American children reflected need achievement for self in which the achiever is the primary beneficiary.

Closely related to the family achievement motive is the more general motive: to achieve through cooperation rather than through competition. The emphasis on cooperation is the logical part of the value attached by Mexican-Americans to the family, community and ethnic group. Within the value framework of traditional Mexican-American communities striving for individual gain is interpreted as selfish. More specifically, competition between individuals is thought to detract from common and shared objectives.

Findings by Madsen (1967) would question whether cooperation is due to family achievement motive as a cultural value or a necessity of socioeconomic status. Madsen's findings in three Mexican subcultures indicate that children raised in different subcultural settings

in Mexico differ with respect to competitive vs. cooperative motivation and tend to substantiate the naturalistic observations of Lewis (1961) and Romney (1963) who had stated a formal hypothesis relating child rearing practices to achievement motivation, aggression and competition.

> It is our hypothesis that the severity and effectiveness of training with respect to suppressing overt aggression in the barrio children is inherently incomparable with the development of self reliance. We would assume that a strong achievement orientation would necessarily involve competition, and if the fear of expressing aggression is strong enough, effective competition would not be allowed to develop.[10]

The environmental contingencies of a child reared in a subsistence agricultural setting differ markedly from those of children raised in an urban setting. In a subsistence agricultural situation, the family works together as a unit to raise enough food for family survival. If a child is competitive and aggressive toward other members of the family unit he is likely to be suppressed as he serves no adaptive purpose for other members of the family. Working in cooperation with other family members, on the other hand, serves a useful purpose in that all will benefit. Such cooperation is therefore likely to be encouraged by parents. Through consistent reinforcement, the

child learns that conflict is unacceptable and that cooperation is expected. The Mexican urban middle-class child, on the other hand, is reared in quite a different environment. The breadwinner of the family is usually engaged in work that involves competition for economic survival outside of the home. Aggressive and competitive behaviors may in many instances be seen as necessary and indeed desirable by the parents. The parents in turn will tend to reward aggressive and competitive behavior in their children or at least provide a model for such behavior. This would account for the experimental results in that children coming from an urban setting were more competitive than those from a rural agricultural setting, were it not for the fact that the urban poor girls were also less competitive than the urban middle-class girls. It may be that poverty alone, independent of its existence in a rural or urban environment, is indirectly related to child-rearing practices that would account for a "para ti" (for you) as opposed to a "para mi" (for me) attitude on the part of children. The primary concern of the family in a poverty environment is the procurement of food and other basic essentials necessary for survival. A child who competes with other family members for more

than his share of the available assets is likely to be reprimanded. The "para mi" attitude is thus likely to be associated with unpleasant consequences and the "para ti" attitude associated with positive feedback from other members of the family.[11]

Another study with the School Situation Picture Stories Technique (Ramírez and Price-Williams, 1974), focusing this time on human-relational styles, showed that Mexican-Americans scored higher on need affiliation (indicating a greater desire to interact with others and belong to a social group) and on need to nurture (showing greater sensitivity to others' feelings and a willingness to help others). These qualities seem to develop from the emphasis on personalization of interpersonal relationships in the culture, an indication of the emphasis which is given to the social environment. Mexican-American children also scored high on need succorance (willingness to rely on others, particularly adults, for help and guidance).

McClintock (1974) found that Anglo-American children are more competitive than Mexican-American children and that children of both cultural groups become more competitive with increased age. These findings are consistent with previous findings indicating

urban Anglo-American children are more competitive than urban Mexican-American and rural Mexican children and that children of all three cultural groups become more competitive with increase in age. McClintock admits not having controlled for socioeconomic status as one of the weaknesses in his research. Anglo-American children were drawn principally from middle-class families, and Mexican-American children were drawn from lower middle-class families. However, in terms of the socioeconomic status characteristic of the two samples, the experimenter claimed each was fairly typical of the majority of Anglo-American and Mexican-American families in this society and the findings representative in this sense.[12]

A recent investigation (Kagan and Carlson, 1975) examined the adaptive assertiveness of children using an assertiveness pull scale in which children received chips for pulling a handle which was connected to a spring scale by a string. (See Appendix M.) Children received more chips the harder they pulled, but only up to a point. If they pulled with more than 12 pounds of force, a string broke and they received no toys. The findings indicated more adaptive assertiveness among middle income urban Anglo-American children than among

low income semirural Anglo-American and Mexican-American children who did not differ from each other. Rural Mexican children were least adaptive, often not pulling the string near the 12 pound limit so they obtained only a few toys. The study indicated little nonadaptive assertiveness among any groups. Almost no children persisted in losing toys by breaking the string. This finding, however, was probably a function of the way nonadaptive assertiveness was measured, for the breaking string provided a dramatic visual and auditory warning that the children had been too assertive. In contrast, there were only vague cues warning of non-adaptive passivity; the children simply did not receive as many chips as they could have.[13]

Kagan and Romero (1976) designed an investigation to determine if low income semirural Anglo-American children would be more nonadaptively assertive than low income semirural Mexican-American children in situations which do not involve interpersonal competition. To measure this behavior, the assertiveness pull scale used in the Kagan and Carlson study (1975) was modified so that the same cues warned of nonadaptive assertiveness and nonadaptive passivity. A total of 48 children participated in the experiment. The

children were Anglo-American and Mexican-American boys and girls of 5-7 and 8-9 years from a semirural poor community in southern California. The children were equally divided by culture, age, and sex.

The findings were consistent with previous studies which indicated Anglo-American children to be more assertive than children with a Mexican cultural background. However, the age differences observed were less consistent with previous research in the studies of competition. Across a variety of situations older children are more competitive than younger children and more often persist in nonadaptive competition (Kagan and Madsen, 1971, 1972; Madsen, 1971). In this experiment when interpersonal conflict was absent, more older children than younger children behaved as rational problem solvers. When the assertive strategy failed them, older children more often tried being more passive. Although Kagan and Carlson (1975) found older children more assertive than younger children on the assertiveness pull scale, the findings of that experiment are not in contradiction if rational problem solving is a more powerful predictor of age differences than assertiveness per se. In the Kagan and Carlson study, the more assertive behavior of the older children

led to more rewards; in the present study the lesser assertiveness of the older children led to more rewards.[14]

Knight and Kagan (1977) took the barrio model and the majority model to determine which of the two acculturation models was more descriptive of the prosocial and competitive behavior of Mexican-American children living in a traditional community. Since the majority of Mexicans coming to the United States come from the more traditional and rural parts of Mexico (Gamio, 1930; Grebler, 1965), a country which itself is predominantly more traditional and rural than the United States, an acculturation to the majority model suggests that the successive generations of Mexican-Americans will decreasingly subscribe to the values and behavior patterns common in rural Mexico in favor of those common among individuals of the majority culture in the United States.

Using a Social Behavior Scale (see Appendix N) consisting of a four-choice card, the subjects were to choose one of four alternatives which would directly determine both their outcome and a peer's outcome. The findings suggested that, at least for second and third generation Mexican-American children, there is a

loss of prosocial values in favor of competitive values through successive generations. Even when children are sampled from a traditional Mexican-American community, which should favor preservation of traditional values or an acculturation to the barrio, the generational pattern of prosocial and competitive behavior indicates an acculturation to the majority. (See Appendix O.)

Knight and Kagan (1977) in their studies as to the development of prosocial and competitive behaviors in Anglo-American and Mexican-American children designed a behavioral choice card to distinguish four social behaviors (altruism/group enhancement, equality, superiority, and rivalry/superiority), and administered it to 5-6 and 7-9 year old children from three populations: upper-middle SES Anglo-American, lower SES Anglo-American; and lower SES Mexican-American. In this experiment Anglo-American and Mexican-American children were sampled from the same school in a homogeneous low income community. The effect of socioeconomic class differences, at least among Anglo-Americans, were assessed by the inclusion of a middle income Anglo-American comparison group. A middle income Mexican-American comparison group was not available. Even controlling for SES, urbanization level, and school attended, there remained

ethnic differences in the development of social behaviors. With age, Mexican-American children tended to be somewhat more prosocial in contrast to Anglo-American children who were increasingly more competitive.[15]

The question arises whether ethnic background may be associated not only with the magnitude of prosocial and competitive responses, but also with the direction of developmental trends. Also, comparison of the two Anglo-American groups indicated lower SES children make more prosocial choices than upper middle SES children. This would indicate that SES explains some of the variance in competitive behavior. (See Appendix P.)

Summary

From the studies mentioned it is evident that there has been extensive coverage of cooperation and competition within different age and ethnic groups. American children are found to be more competitive than children from other countries. The American school system would seem to be oriented towards a competitive goal structure. Competition in and of itself is not reprehensible, but rather inappropriate competition, and most of the competition in classrooms would seem to be inappropriate, since it is self-defeating. On the

other hand, sharing, helping, communicating and mutual concern are all aspects of cooperation, and research supports its use in a large number of situations.

Studies conducted on the competitive orientation of Mexican, Mexican-American and Anglo-American children indicate that differences exist between these groups. Mexican children consistently display less competitive behavior than Anglo-American children. Mexican-American children fall part way between the extremes of cooperation typical of the Mexicans and competition typical of the Anglo-Americans.

Upon reviewing the variables as identified by Ramírez and Castañeda (1974) which would affect the motivational and learning styles of Mexican and Mexican-American children, it is not clear whether the less competitive orientation of Mexican and Mexican-American children is due to cultural values expressed through child rearing practices, or whether it is simply a necessity for survival brought about by socioeconomic status.

B. COGNITIVE STYLES AND MEXICAN-AMERICAN CHILDREN

To date, three major studies have documented the greater field dependence of Mexican-American children relative to Anglo-American children. Canavan (1969) compared the cognitive styles of 596 Mexican-American and 571 Anglo-American children in grades kindergarten through six. She found Mexican-American children to be significantly more field dependent than their Anglo-American classmates.[16] A later study by Ramírez and Price-Williams (1974) in Houston, Texas also revealed greater field dependence in a group of 60 Mexican-American fourth graders who were compared to an equal number of Anglo-American school children matched on socioeconomic status and religion. At about the same time, Kagan and Zahn (1974) tested 134 Anglo-American and Mexican-American school children in grades two, four, and six, equated on socioeconomic status, and found Anglo-American subjects scoring in a significantly more field independent direction than the Mexican-American sample.[17]

Cross-cultural studies in Mexico have also shown Mexican children to be more field dependent than Anglo-American children (Meband and Johnson, 1970; Witkin, et. al., 1974; Kagan, 1974; Ramírez and Price-

Williams, 1974). The greater field dependence of Mexican and Mexican-American subjects probably reflects the more traditional child rearing practices of the Mexican culture.

Ramírez observed teaching styles of Mexican-American parents in both Sacramento, California and Houston, Texas. These observations indicated that Mexican-American parents: 1) made much use of social rewards which strengthened the personal relationship between the parent and the child; 2) encouraged the child to work cooperatively with others in the family and to achieve so that the family would benefit; 3) used modeling and close guidance in teaching new tasks; 4) were extremely sensitive to the feelings and mood of the child; and 5) used endearing terms and phrases in Spanish in reinforcing the child for a task well done.

Following up on his work, Ramírez and Castañeda (1972) observed styles of Mexican-American and Anglo-American mothers with First and Second Grade children. The experimenter instructed each mother in the use of a game toy and asked the mother, in turn, to teach it to her child. A videotape was made of each mother teaching her child and used in later analysis.

The results showed that the preferred teaching style of Mexican-American mothers was modeling, e.g., "This is the way you do it. Now you do it like I did." Mexican-American mothers used this approach with both male and female children. Anglo-American mothers used the modeling approach for female children, but a "trial and error" approach with the male children. With the male children, the mother would give verbal instructions for the game, and then would ask the child to try it himself. In addition, it was noted that Mexican-American mothers tended to give their children more encouragement and support when the child was experiencing difficulty than did the Anglo-American mothers.

Each mother had been asked to tell a story of their own choosing to their child at the conclusion of the game. The results from this portion of the study showed that Mexican-American mothers tended to personalize their stories (e.g. told stories from their own experience as children, or of their own parents or relatives) more than Anglo-American mothers. Also, stories told by Mexican-American mothers tended to have more themes reinforcing identification with the family and achievement of the family.

In a recent study, Kagan (1974) compared the number of reinforcements given by Mexican-American and

Anglo-American mothers to their children while the children performed a task. He found not only that Mexican-American mothers gave more reinforcement than the Anglo-American mothers, but also that Mexican-American mothers tended to reinforce both correct and incorrect responses from the children. An analysis of nonverbal communication between the mothers and their children, and the verbatim reinforcements would probably enable one to distinguish between the reinforcements for correct responses and those for incorrect responses, and the results must not be construed to indicate that the child is not able to discriminate between the two. The point is that the Mexican-American mother offers more verbal support for the child's attempts.[18]

These child rearing practices closely resemble the field dependent "socialization" cluster posited by Dyk and Witkin (1965) to explain the development of a field dependent cognitive style in children. Such a socialization cluster is in opposition to the usual childbearing practices of "mainstream" Anglo-American culture, which typically emphasizes greater assertiveness, autonomy, and a more individualistic sense of self-identity. Through the process of acculturation it is expected that with succeeding generations the

cognitive style of Mexican-American children should become increasingly field independent with greater exposure to the influences of Anglo-American culture.

Research indicating that such an acculturation process does take place comes from at least two sources: Dershowitz (1971) and Ramírez et. al. (1974). Dershowitz hypothesizes that Jewish-American children coming from families closely identified with the values and child rearing practices of traditional Jewish culture should be more field dependent than Jewish-American children coming from homes which were more acculturated to the standards and norms of Anglo-American society. He further reasoned that both groups of Jewish-American children in turn should be more field dependent than a third group of Anglo-American Protestant subjects. Dershowitz's hypothesis was essentially confirmed. Anglo-American Protestant subjects, overall, scored more field independently than both traditional and acculturated Jewish-American subjects; and the latter group scored in a more field independent direction than the former.[19] Ramírez et. al. (1974) investigated the hypothesis that Mexican-Americans from traditional communities in the United States would be more field dependent than Mexican-Americans living in communities where there was

greater exposure to the influences of Anglo-American culture. Using field research methods, these investigators were able to identify two types of nontraditional Mexican-American communities which they labeled "dualistic" communities (characterized by Mexican-American members who are influenced by both Mexican and Anglo-American culture) and "atraditional" communities (characterized by identification of their Mexican-American members with the values and standards of Anglo-American culture). These investigators reasoned that as communities became more acculturated, their Mexican-American members should become more field independent.

To test their hypothesis, Ramírez et. al. tested 541 Mexican-American children and their mothers. As expected, the scores of both children and mothers from the traditional community were the most field sensitive, while those from the atraditional community were the most field independent. The scores from the dualistic community were intermediate between these two extremes.

To determine cognitive style, children were given the Portable Rod and Frame Test and their mothers were administered the Draw-a-Person Test. Cognitive style is partly concerned with the importance people attach to parts or wholes. Some people have a style of

perceiving the world in such a way that the smallest details almost always stand out. Other people primarily perceive the "bit picture." In a field independent mode of perception, the person is able to perceive items as discrete from the organized whole of the field. In a field sensitive mode of perception, the organization of a field as a whole dominates perception of its parts; an item within a field is viewed or experienced as fused with an organized ground.

Cognitive style also refers to differences in perceiving social aspects of the environments. For example, some people tend as a matter of habit to focus on others' facial expressions and moods; they are extremely sensitive to nonverbal indicators of feelings. Other persons respond more readily to verbal statements or general features of the environment.

In general, field sensitive persons appear to be more imaginative in verbally describing social situations. The social environment seems to be more significant for field sensitive persons. They remember faces and social words better than field independent persons. The field sensitive individual is more influenced by expressions of confidence or doubt than is the field independent person.

Field independent persons perform better than field sensitive on tests that involve separating a part from an organized whole or rearranging parts to make a whole. They also tend to be "task centered" while taking tests. Field sensitive persons, on the other hand, tend to glance at the examiner and pay more attention to the social atmosphere of the testing situation.

Field sensitive persons prefer to interact with authority figures with whom they can establish a personal relationship, while field independent persons prefer authority figures who take a more passive, consultant-like role.[20]

Diaz Guerrero's (1975) findings in his six year cross cultural longitudinal study with American children in Austin and Mexican children in Mexico City were consistent with those of Ramírez and Castañeda (1974) that there is a greater value placed on independence by American mothers than is typical of the Mexican mother. The American child, regardless of social class, is encouraged towards independent thinking and intellectual activities in which individual achievement is stressed rather than interpersonal fulfillment.[21] The Mexican child was found to be more field dependent in his style of learning. The differences in level and

pattern of cognitive development among Mexican and American children were found to be due primarily to differences in sociocultural premises, value orientations, and environmental milieu--especially family and school--in the two societies.[22]

Buriel (1975) designed a study to yield data bearing on the cognitive styles of Mexican-American children who are separated by varying generations from contact with Mexico and its more traditional culture. Given the association between Mexican culture and field dependence and the fact that ethnic groups in the United States usually become more acculturated with each passing generation, it was hypothesized that first and second generation Mexican-American children would be more field dependent than third generation Mexican-American children who together with their parents, have had longer exposure to Anglo-American culture. In addition, a sample of Anglo-American children was included in the study with the expectation that they would provide a field independent base line against which to measure the extent and direction of the cognitive style development of the Mexican-American children from the various generation groups.

Whereas Ramírez and Castañeda looked at the Mexican-American in terms of traditional, atraditional and dualistic communities, Buriel made reference to first, second and third generation. The first generation group included subjects whose parents had both been born in Mexico. Second generation subjects were those born in the United States, but one or both of whose parents were born in Mexico. Third generation subjects must have been born in the United States and also have had both parents born in the United States. Anglo-American subjects and their parents were all born in the United States and were originally of northern European extraction.

In his finds, Buriel (1975) failed to support an acculturation to the majority model. The intergeneration cognitive styles of Mexican-American school children of the present study do not follow a linear pattern of increasing field independence from the first to the third generation. Instead, the relationship between cognitive style and generation is curvilinear, with first and third generation Mexican-American showing greater field dependence compared to second generation children, who score closer to the Anglo-American norm of greater field independence. (See Figure 2.)[23]

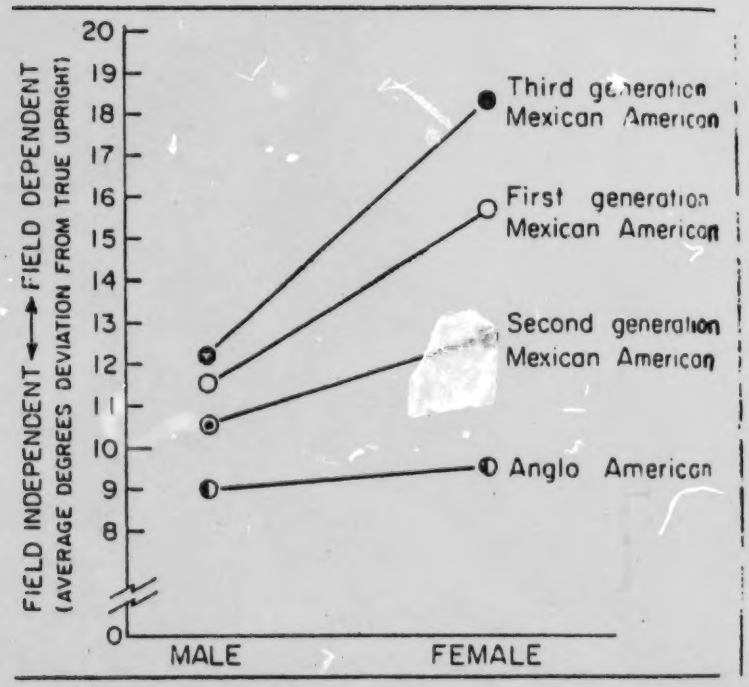

Figure 2. Distribution of Average Deviation Scores for the Four Generation Groups.

Buriel attributed these findings to two processes. The first is that Mexicans choosing to immigrate to the United States may not be representative of the larger Mexican population in terms of cognitive style. The greater sense of individuality associated with field independence seems a necessary characteristic for those willing to break with established family and community ties in Mexico for the sake of potential economic enhancement in a strange land. Although in the present

case those making the decision to immigrate were the parents of first and second generation subjects, it seems quite likely that these parents may have passed on their more individualistic tendencies to their children, thus accounting for their greater field independence compared to third generation subjects whose parents were born and raised in the United States.

The results also suggested that Mexican-Americans may be acculturating more to the life style of their barrio or community than to Anglo-American culture. The Mexican-American community in the study contained many of the characteristics of the "traditional" community which have been related to the greater field dependence of its members (Ramírez and Castañeda, 1974; Ramírez, et. al., 1974). This would explain, according to Buriel, the greater field dependence of the third generation subjects who together with their parents, have usually lived longer in the present community than either first or second generation subjects who are more recent arrivals. Hence, field independent individuals may be selectively immigrating from Mexico and settling in communities that adhere closely to many of the socio-cultural premises of Mexican culture. Consequently, by about the third generation, the grandchildren of

these original immigrants may become effectively socialized to the life style of their more traditional community which, as Ramírez, et. al. have shown, usually carries with it a more field dependent cognitive style.

It should be noted that the particular pattern of cognitive style development may be unique for the more traditional community setting sampled by Buriel (1975). It could be that dualistic and atraditional Mexican-American communities, as described by Ramírez, et. al. (1974) do foster a pattern of cognitive style development that is increasingly more field independent with successive generations. The possible differential development of cognitive styles within each of these three types of Mexican-American communities certainly merits further investigation.

Summary

Three major studies have documented the greater field dependence of Mexican and Mexican-American children relative to Anglo-American children. Mexican-American children have been found to score significantly in a more field dependent direction than the Anglo-American children. The work of Ramírez and Castañeda would seem to indicate that the greater field dependence of Mexican and Mexican-American subjects probably reflects

the more traditional child rearing practices within the Mexican culture. The Mexican-American mother makes extensive use of modeling and reenforcement in her preferred teaching style. This is in direct contrast to the Anglo-American mother who typically emphasizes assertiveness, autonomy and a more individualistic sense of self-identity. Although it is expected that through the process of acculturation succeeding generations of Mexican-American children would become more field independent in their cognitive style, findings of research have not always been conclusive in the direction of acculturation to the majority model.

In interpreting results of research in cross cultural studies of Mexican and Anglo children, attention is called to Linton's (1945) concept of modal personality which emphasizes the fact that personality patterns are not invariables, especially in the more complex societies. The concept of modal personality allows for a quantitatively descriptive approach, while recognizing the great range and variety of individual personality configurations found in any culture. While there are definite trends evident in the Mexican and Anglo society that can be attributed to noted differences in the two cultures, it is hardly possible at this

time to speak of one "national character" that would be appropriate for either Mexico or the United States.

C. CONFLUENT EDUCATION

The Need for Confluent Education. School experience produces many important affective outcomes. Yet these outcomes have been ignored as schools concentrate on verbal conceptual objectives. The quality of school life and the effectiveness of schools in educating citizens can be improved by paying more attention to the attitudes and values necessary if education is to occur and if the individual is to become a responsible citizen.

There are many attitudes and values that are important for a school to emphasize. Positive self-attitudes, for example, have been shown to influence achievement as well as personal adjustment and acceptance of other individuals.[24]

> We have been hearing much from psychologists in recent years about the importance of the self-concept. We know of the crucial role it plays in every aspect of human behavior. We know, for example, that it is a basic cause of failure in all the school subjects. It determines to a high degree whether a person will be well adjusted or maladjusted, effective or ineffective in his dealings with life and it plays a primary role in the achievement of self-actualization. It is even fundamental in the growth and creation of intelligence itself. With such new knowledge of the

> importance of the self-concept for human behavior, its exclusion from the classroom is simply unthinkable. (Emphasis added.)[25]

In a recent study on self-concept and locus of control related to achievement, Cervantes (1976) found Mexican-American girls with low self-concept, internal locus of control and need achievement obtaining higher achievement means than any other group. The sample consisted of 227 Mexican-American students of which 98 were females and 129 were males. Of the total sample, 65 were second grade students, 80 were from third grade and 82 were fourth graders. Cervantes notes that statistical test requirements reduced the total sample by about 25 percent which left 172 in the final sample. The students attended a district in a major urban center in South Texas in which they were the numerical majority. Cervantes does not indicate having controlled for SES.

From his findings, Cervantes hypothesizes that the expectancy placed by the family on the Mexican-American daughters to assume home responsibilities early in their life may be related to the internal locus of control variable. This in turn may result in a lower self-concept and is compensated by need achievement and thus higher academic achievement. According to much of

the self-concept and locus of control literature, high internal locus and high self-concept pupils might be expected to score high in achievement. This, however, was not the case, which suggests that other mediating factors affected achievement. Findings in the Cervantes (1976) study indicate that school personnel should examine the relationship of affective and personality variables to achievement.[26] Additional research utilizing larger sample sizes within and across grades should also explore other factors such as language dominance, the place of the child in the family, family responsibility status, school attitude factors and family SES status.

Most school personnel consider it important that pupils hold positive attitudes toward the subject areas. A school wants to teach a pupil not only to read, but also to enjoy, appreciate and value reading. Affect and cognition cannot be separated. Each affective behavior has a cognitive counterpart and for every cognitive outcome there are changes in affect. If an individual is to be aware of his feeling he has to conceptualize it and place it in the context of the situation he is experiencing.[27]

One of the most important social problems facing our country is the prejudice toward groups and

individuals who are in some way different from a middle class white majority. Ethnic groups, the lower working classes, physically and mentally handicapped individuals, and even the aged are discriminated against because of their "difference." In a country which is painfully coming to the realization and slow acceptance of multi-cultural diversity, to value a pluralistic and democratic society must become an important emphasis of public education. To value a pluralistic democratic society calls for certain attitudes on the appreciation of differences, on equality of opportunity, on freedom of choice. To value a pluralistic democratic society rules out ethnic prejudice. There is need for children who are black, white, brown, yellow and all the American shades in between to live in an environment where they need not fear nor suspect diversity, but rather enjoy and value it.

Confluent Education seeks to integrate, in teaching and learning, the realm of emotions, attitudes, and values (affective domain) with that of thought and intellect (cognitive domain). It views this integration as essential to meaningful and relevant education, to intelligent and mature behavior and to a person taking a responsible and creative place in democratic society.[28]

To accomplish this, Confluent Education may utilize any method, practice, technique or approach that fosters the integration of cognition and affect, of thought and feeling in one learning experience for one or more learners.

In approaching education from the cognitive and affective aspects, intrinsic in any kind of learning, and referring to it as two elements joining in a smooth flowing river intertwining so that one does not take precedence over the other and each serves to enhance the value of the other, the educator looks at the whole man in a humanistic light.[29]

Advent of Confluent Education. Within the framework of the "child-centered" vs. "subject-centered" controversy which has dominated educational debate in America for the last 30 years, Confluent education is an attempt to preserve and integrate the value of an education shaped principally by the requirements of subject matter and education molded mainly by the needs of the individual students. Confluent education emerged in 1967 as the path between the proponents of the life adjustment movement and the advocates of the priority of rational training in the school.

A Commission for Life Adjustment was formed in 1947 and the goals of education were expressed by the

Commission in its 1951 report as follows:

> ... life-adjustment education was concerned with "physical, mental, and emotional health," and with "the present problems of youth as well as their preparation for future living;" it recognized "the educational value of responsible work experience in the life of the community" as well as "the importance of personal satisfactions and achievements for each individual within the limits of his abilities." ... life-adjustment education "emphasizes active and creative achievements as well as adjustment to existing conditions; it places a high premium upon learning to make wise choices, since the very concept of American democracy demands the appropriate revising of aims and the means of attaining them."[30]

In 1954, the movement had made substantial headway in school districts throughout the country.

With the coming of Sputnik, the world's first space satellite, in 1959, the pendulum swung completely to the other side so that Paul Goodman in 1962 described the situation in the following words:

> So we see that mothers who used to want their offspring to be "well adjusted," are now mad for the I.Q. and the Percentile. Schools that were lax, democratic or playful, are fiercely competitive. And an average unbookish youth finds himself in a bad fix. He may not be able to cope with the speed-up and strict grading, yet if he fails there are loud alarms about his predelinquency, and there are national conferences on dropouts.[31]

Goodman saw "an educational calamity" being produced with the heavy emphasis on academics.

> Every kind of youth is hurt. The bright but academic can, as we have seen, perform; but

> the performance is unauthentic and there is a pitiful loss of what they could be doing with intelligence, grace, and force. The average are anxious. The slow are humiliated. But also the authentically scholarly are ruined. Bribed and pampered, they forget the meaning of their gifts. As I have put it before, they "do" high school in order to "make" Harvard, and then they "do" Harvard.[32]

Goodman, in 1962, was one of a growing number of new critics of contemporary education. If the critics of the 1950's and 1960's took the schools to task for failing to foster high levels of academic achievement, the brunt of recent criticism has reechoed Goodman's concerns in the form of allegations charging the school process with being narrow, inhuman and one sidedly cerebral. These new critics, according to C. H. Patterson, are the "successors of the life adjustment educators whose approach resisted the restriction of public education to the development of the intellect."[33]

While there are differences among these new critics, their approach to education is generally labeled "humanistic." Humanistic education generally demonstrates two common concerns:

> The first is that of teaching subject matter in a more human way, that is, facilitating subject matter learning by students. The second is that of educating the nonintellectual or affective aspects of the student, that is, developing persons who understand themselves, who understand others, and who can relate to others.[34]

Confluent education is a humanistic attempt to embrace both self and subject matter in school learning. It can be seen as a rejection of any position which posits a dichotomy between child centeredness and subject centeredness, between self and subject matter concerns. In his defense of the subject matter content of a curriculum, George Brown, the founder of Confluent Education, rejects the position of extremists who want to eliminate all prescribed curricula in favor of a curriculum that emerges from the needs and interests of the child. While acknowledging that modifications and reform are needed to remove the vast amount of deadwood which loads down the present curriculum, he nevertheless argues that learning a certain amount of cognitive content is essential if a child is to survive and flourish in a universe which contains its own reality requirements for survival and enhancement.[35]

Thus, Confluent education refuses to ally itself with either polarity in the child centered/subject centered controversy, but rather seeks their integration. Brown expresses his thinking on this matter when he recommends "that effective learning not be isolated from the regular curriculum."[36] He further states his rationale for this recommendation in the following words:

> If the teacher is forced to discipline himself by considering how affective experiences can be integrated with cognitive learning within the content of conventional curricula, then he will very likely be more in touch with the Now, at least the Now of the curriculum. And if he is student-oriented, he will also very likely get in touch with the individual Nows of his students with regard to how they experience the curriculum. He can then draw upon his affective experiences or invent new techniques that will add to his effectiveness as a teacher and improve the learning of his students.[37]

Writing in the 1975 yearbook of the National Society for the Study of Education, Brown explains the core of Confluent Education's principle of learning.

> My own bias is a clear one. I believe that instead of ignoring, denying, or repressing affect in the classroom, or in the training of teachers for the classroom, we should capitalize on its existence. I believe that instead of seeing emotions or feelings as components which interfere with rationality we should realize that the latter is only one side of the coin. While it is true that emotions may have a negative effect on learning, emotions can also have a positive effect, as in the passion of the scholar. Such an affect depends on which emotions, under what conditions, at what time, and with which students. And sometimes before we can use the more positive contributions emotions can make to the learning process, we have to deal with the negative emotions involved.[38]

Confluent education, in short, is effective teaching requiring simultaneous attention to the thought processes of the individual learner as well as his emotions and feelings.

Summary

Confluent education then can be said to seek a balance between the learner and what is to be learned. It is neither student centered nor subject centered, but attempts to integrate the two. Unlike other efforts at humanistic or psychological approaches to education, Confluent education does not separate the self, emotions and attitudes, relegating them to another curriculum area. Instead, Confluent education takes advantage of the whole child in all curriculum areas throughout the learning process.

FOOTNOTES

1. D. B. Haines, and W. J. McKeachie, "Cooperative vs. Competitive Discussion Methods in Teaching Introductory Psychology," Journal of Educational Psychology, 1967, 58, pp. 386-390.

2. D. W. Johnson and F. P. Johnson, Joining Together Group Theory and Group Skills, Englewood Cliffs, New Jersey: Prentice-Hall, 1975.

3. Linden L. Nelson and Spencer Kagan, "Competition: The Star-Spangled Scramble," Psychology Today, 6, 1972, pp. 53-91.

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5. J. Holt, The Underachieving School, New York: Dell Publishing Co., 1969.

6. Millard C. Madsen. "Cooperative and Competitive Motivation of Children in Three Mexican Subcultures," Psychological Reports, 1967, 20, pp. 1307-1320.

7. Manuel Ramírez, III and Alfredo Castañeda, Cultural Democracy, Bicognitive Development and Education, Academic Press, New York, 1974, p. 41.

8. Ibid., p. 45.

9. Ibid., pp. 41-97.

10. K. Romney and R. Romney, "The Mixtecan of Juxtlahuaca, Mexico," as cited in Millard C. Madsen "Cooperative and Competitive Motivation of Children in Three Mexican Sub-Cultures," Psychological Reports, 1967.

11. Madsen, loc. cit.

12. C. G. McClintock, "Development of Social Motives in Anglo-American and Mexican-American Children," Journal of Personality and Social Psychology, 29, 1974, pp. 348-354.

13. Spencer Kagan and H. Carlson, "Development of Adaptive Assertiveness in Mexican and United States Children," Developmental Psychology, 11, 1975, pp. 71-78.

14. _____ and Clarence Romero, "Nonadaptive Assertiveness of Anglo-American and Mexican-American Children of Two Ages," Inter-American Journal of Psychology, 1976, (in press).

15. George P. Knight and Spencer Kagan, "Acculturation of Prosocial and Competitive Behaviors Among Second and Third Generation Mexican-American Children," Journal of Cross Cultural Psychology, September, 1977.

16. D. Canavan, "Field Dependence in Children as a Function of Grade, Sex and Ethnic Group Membership," presented at the meeting of the American Psychological Association, Washington, D.C., 1969.

17. Spencer Kagan and Laurence Zahn, "Field Dependence and School Achievement Gap Between Anglo-American and Mexican-American Children," Journal of Education Psychology, Vol. 67, No. 5, 1975, pp. 643-650.

18. Nelson, loc. cit.

19. A. Dershowitz, "Jewish Subcultural Patterns and Psychological Differentiation," International Journal of Psychology, 6, 3:223-231.

20. Ramírez and Castañeda, op. cit., pp. 64-79.

21. Wayne H. Holtzman, Rogelio Diaz-Guerrero, and Jan. D. Swartz, Personality Development in Two Cultures, A Cross-Cultural Longitudinal Study of School Children in Mexico and the United States, University of Texas Press, Austin, Texas, c. 1975, p. 315.

22. Ibid., p. 345.

23. Raymond Buriel, "Cognitive Styles Among Three Generations of Mexican-American Children," Journal of Cross-Cultural Psychology, Vol. 6, No. 4, December, 1975.

24. Discussing the relationship between self-concept and learning, Don Hamachek summarizes the research conclusions of seven different self-concept studies:

    1. In terms of their perception of self, individuals have a definite commitment to perform as they do. Other things being equal, those who do not achieve choose not to do so, while those who do achieve choose to do so (Roth, 1959).

    2. There was a significant positive relationship between immature self-concepts and reading disabilities in a third- and a sixth-grade class (Bodwin, 1957).

    3. There was a significant positive relationship between high self-concept and school achievement in a group of 102 fifth- and sixth-grade children (Coppersmith, 1959).

    4. There was a significant positive relationship between self-concept of ability and school achievement over a six year period from grade 6 through 12 (Brookover, 1967).

    5. Measures of self-concept and ratings of ego-strength made at the beginning of kindergarten were found to be more predictive of reading achievement two and one-half years later than were measures of intelligence (Wattenberg, 1962).

    6. Male achievers feel more positive about themselves than do male underachievers (Shaw, 1960).

    7. Underachieving academically capable high school boys were found to have more negative perceptions of self and of others and were less emotionally stable than achievers (Combs, 1964).

"Motivation and Learning," in Education for Affective Achievement, Robert D. Strom and E. Paul Torrance, editors (Chicago: Rand McNally & Company, 1973), pp. 263-264.

The most recent study cited by Hamachek is that of Brookhover which dates back to 1967. Studies concerned with Mexican-American children in the area of self-concept are not cited.

25. Arthur Combs, "Humanizing Education: The Person in the Process," In Humanizing Education: The Person in the Process, Robert Leeper, editor, Washington, D.C.: Association for Supervision and Curriculum Development, National Education Association, 1967, p. 80.

26. Robert A. Cervantes, Ph.D., "Self-Concept, Locus of Control and Achievement in Mexican-American Pupils." Paper presented at the Third Annual Conference on Bilingual Education, Feb. 19-21, 1975, San Francisco, California.

27. D. W. Johnson, The Affective Side of Schooling Experience, 73, p. 308.

28. Wieke Wai Kee Au,"The Relationship of Confluent Education to Jesuit Secondary Education in the United States, A Theoretical Analysis." (Unpublished Dissertation, University of California, Santa Barbara, June, 1976.)

29. Thomas Ramsey Yeomans,"Towards A Confluent Theory of the Teaching of English, With Implications For Teacher Education." (Unpublished Dissertation, University of California, Santa Barbara, June, 1973.)

30. Au, op. cit., p. 110-111.

31. Paul Goodman, Compulsory Mis-Education and the Community of Scholars, New York: Random House, 1962, p. 147.

32. Ibid., p. 147.

33. C. H. Patterson, Humanistic Education, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., p. 14, 1973.

34. Patterson, op. cit., p. x.

35. George Brown, Human Teaching for Human Learning (New York: The Viking Press, Inc., 1971), pp. 245-246.

36. Ibid., p. 244.

37. Ibid., p. 245.

38. George Brown, "The Training of Teachers for Affective Role in Teacher Education," The Seventy Fourth Yearbook of the National Society for the Study of Education, Kevin Ryan, editor (Chicago: The University Press, 1975), p. 175.

CHAPTER VI

RESEARCH DESIGN

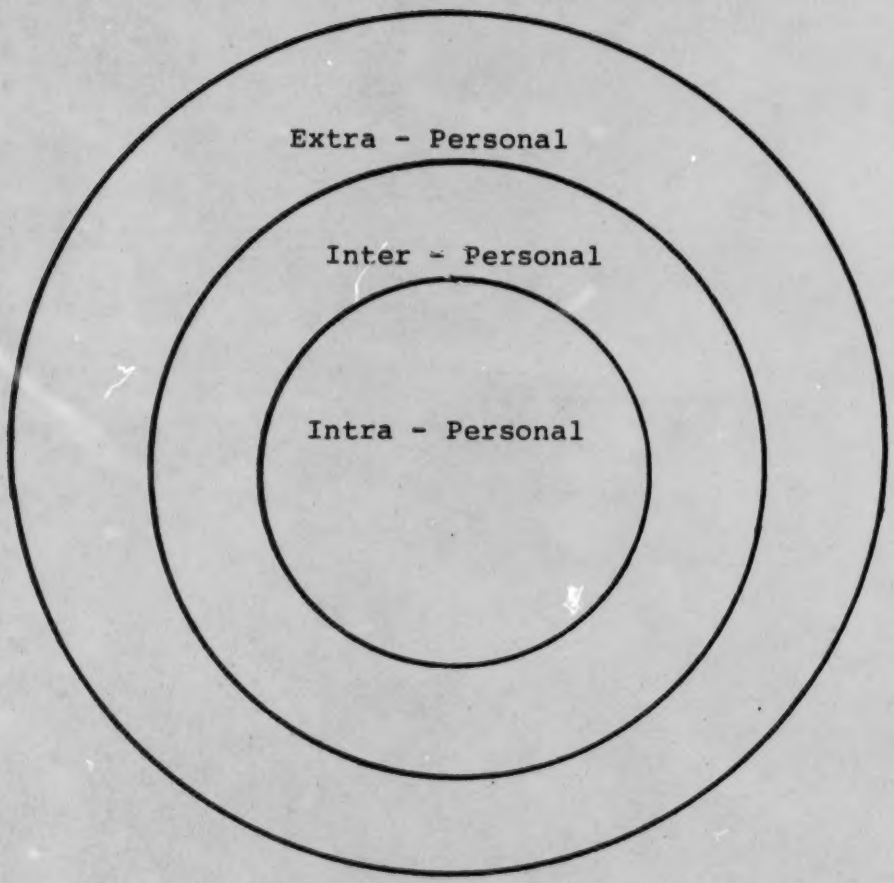
The present investigation is concerned with whether there is a relationship between social motivation as reflected in the goal structures within the classroom and the achievement of the Chicano student in the areas of reading and mathematics, and the nature of the relationship (if one exists). As a starting point, the investigator will adopt the findings of Castañeda and Ramírez (1970, 1974) that Chicano children are field dependent as opposed to Anglo children who are field independent, and Kagan (1972, 1974, 1975, 1976, 1977), Madsen (1967, 1970, 1972) and Knight's (1977) findings indicating that differences exist between the cooperative and competitive orientation of Mexican-American and Anglo children. In the study the investigator will compare achievement among Chicanos in the areas of reading and mathematics when taught within a cooperative goal structure and within a competitive goal structure.

The present investigation follows a previous study by Diane Cordero (1978) which focused on teacher training.

Study by Diane Cordero. The study by Diane Cordero (1978) took place in Oxnard, California with teachers presently assigned to local, state, and federally funded programs designated as "bilingual settings." Forty teachers enrolled in a class entitled "Cultural Variables Affecting the Learning of Chicano Children." The teachers were divided into two groups. Both groups were exposed to the same readings; that is, findings of research in the area of cooperation and competition as it relates to the Chicano child. One group was exposed to a confluent intervention designed to develop cooperative strategies. This intervention included the three components of self-science, Gestalt learning theory, and group process. The design was presented with an emphasis on competitive and cooperative behavior patterns and how these patterns emerge in teaching. Participants were exposed to a highly competitive situation and then allowed to do a cooperative project. They were then given the opportunity to design a series of cooperative activities for their classrooms while working in the context of a support group which provided feedback and a safe environment to experiment. As part of the self-science, participants were asked to keep a journal of their interior dialogues with each

situation. Gestalt learning theory consisted of an introduction concentrating on readiness exercises rather than a therapy situation. These exercises were designed to increase effective and authentic communication. Working in dyads and small groups, teachers participated in exercises such as: Tell me how you are terrific; tell me how you suffer; "I" "You" "It" monologues; top-dog, underdog exercises; and practice in giving the others feedback.

The three components of the teacher training program follow the Yeoman's model. The first part involving self-science is the innermost circle, the intrapersonal domain. Gestalt theory, involving self-awareness as well, was directed toward communication with the other or the interpersonal domain. The extrapersonal domain, the outer circle would deal with the functioning of the group.[1]



YEOMAN's MODEL OF CONFLUENT EDUCATION

1. Intra-personal: characteristics--identify the individual's perception self.
2. Inter-personal: relationships with others.
3. Extra-personal: relationship to reality, world, environment.[2]

For the second group, readings were provided in the areas of cooperation and competition, but delivery was the traditional lecture and discussion approach. The following topics were covered in the readings:

> The status of the Chicano and the internal and external variables contributing to that status.
>
> Culture, the curriculum and the teacher. How culture is transmitted explicitly and implicitly. The school as an acculturating institution.
>
> Locus of control; is the Chicano fatalistic?
>
> Sex roles, relationships to authority: a function of SES, culture, sex? How are these roles and relationships reflected in the educational setting?
>
> Cooperative vs. Competitive learning styles.
>
> Implications of cooperative and competitive learning styles for the classroom.
>
> Field dependence/independence and implication for the classroom.

The Present Study. The present study, following that of Diane Cordero (1978), will explore relationships between achievement of Mexican, Mexican-American and Anglo-American students in the areas of reading and math and the competitive motivations and behaviors exhibited by teachers and their use of cooperative or less cooperative goal structures within the classroom. The major concern is the achievement of the Mexican

and Mexican-American student; however, in order to explore student achievement in light of the research cited in previous chapters, it is essential that teachers' roles and teachers' style, both teaching and interpersonal, be examined.

The study by Cordero (1978) addressed the teachers of the Mexican and Mexican-American student. Emphasis was placed on identifying teachers who perceive themselves as most cooperative and/or least cooperative in their motivations; teachers who scored most cooperative in response to a dilemma situation; and teachers who make most use of cooperative goal structure within their own classroom. The identification was made from the teachers who took the cultural variables class and a control group of teachers who were not exposed to the class.

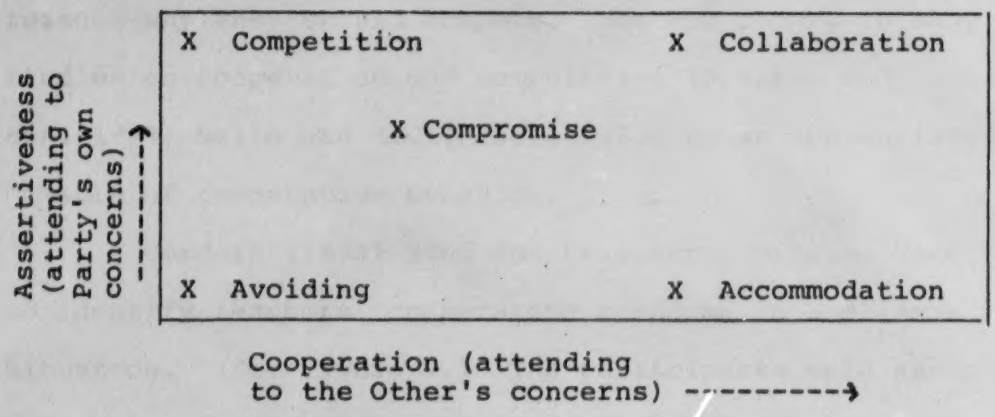
In identifying the three variables of a) teachers' self-perception; b) teachers' cooperative response in a dilemma situation; c) teachers' ability to provide cooperative learning opportunities in the classroom, certain measures were selected and used.

Teachers Cooperative Self-Perception. To determine the teachers' cooperative self-perception the Behavior Description Questionnaire (BDQ) was used.

The BDQ developed by Kenneth W. Thomas concerns conflict management and personal styles for resolving conflict. Thomas defines conflict as a condition rather than a behavior in which the concerns of two parties appear to be incompatible. He sees conflict as productive, especially when tied to social change and creativity. Thomas graphs a two-dimensional model of conflict handling behavior. (See Figure 3.)

From a managerial perspective, collaboration would be the most valuable skill to develop. According to Thomas' graph, two of the conflict-handling modes are relatively assertive in that they try actively to satisfy one's own concerns--competition and collaboration. Two --collaboration and accommodation--are cooperative in that they attend to others' concerns.

The BDQ was used by Cordero (1978) as a self-report measure to determine what conflict-handling mode subjects preferred. The participants were instructed to respond to the questionnaire with their first impulse, and not to spend too much time on each response. If neither response seemed appropriate, they were asked to make a choice anyway.



Definition of terms:

Competition --satisfying one's own concerns at the expense of another's.
Accommodation--the altruistic sacrifice of one's own concerns for those of another.
Compromise --somewhere in between competition and accommodation.
Avoidance --withdrawing from the issue (neither assertive nor cooperative).
Collaboration--seeking an alternative that will satisfy both parties (may be assertive and cooperative at the same time).[3]

Figure 3. Five "conflict-handling modes," graphed according to the two underlying dimensions of cooperation and assertiveness.

Teachers Cooperative Response in a Dilemma Situation. To measure cooperative and competitive behavior in a dilemma situation, the Prisoner's Dilemma game was used.

The decisions it calls for are similar to decisions that are made in real life conflict situations. The players have a stake in cooperating, but there are also realistic reasons why they should compete. The PDQ occurs in many studies on cooperation and competition (Johnson and Johnson, 1974; Gallo and McClintock, 1965) as an appropriate measure of cooperative behavior.

Cordero (1978) used the Prisoner's Dilemma Game to identify teachers' cooperative response in a dilemma situation. (See Figure 4.) The participants were asked

MATRIX

	C^2	D^2
C^1	Acquittal, no confessions 1, 1	You don't confess, partner does. You go to jail. -2, 2
D^1	You confess, get off. Partner gets book. 2, -2	Both confess. Both go to jail. -1, -1

C - Confess
D - Do not confess

1 - prisoner 1
2 - prisoner 2

Explanation to subjects: You and your partner are taken into custody on suspicion of a crime and separated for interrogation. The district attorney believes you are guilty but does not have enough evidence to convict. Under questioning you are given two alternatives: to confess or not to confess. If you both do not confess, the district attorney will not have a case and you will both go free. If you both confess, you will be prosecuted but with a recommendation for a lesser penalty. If one confesses and the other does not, the confessor will go free for turning state's evidence and the other will get the book slapped at him/her.[4]

Figure 4. The Prisoner's Dilemma Game

to arrange chairs in two lines, back to back. The two persons sitting back to back were instructed not to communicate, but to make their choice and mark it on the answer sheet provided. After making their choice they were to record their partner's choice and the outcome of the trial. They then changed partners and repeated the process for ten trials.

Non-confession was interpreted as a trusting response and identified the person as cooperative in order to maximize outcomes. By confessing the player hopes to maximize his/her gains while worsting the opponent. Confession is a strategy response which involves a certain risk and therefore identifies the person as competitive.

Teachers Ability to Provide Cooperative Learning Opportunities in the Classroom. Johnson and Johnson (1975) developed a series of checklists and observation instruments specifically for monitoring goal structures in the classroom. Cordero (1978) used the Structures Observation Instrument to classify the operating goal structures in the classroom as: 1) cooperative, 2) competitive, 3) individualistic. (See Appendix Q.) The three instruments cover: 1) classroom organization, i.e. a) student arrangement, b) student access to each other, and c) access to materials; 2) student-student interaction, i.e. a) amount

of interaction, b) type of interaction, c) method being used to accomplish task, d) reaction of students to teacher praise or criticism, e) attentiveness to fellow students, f) group or self-orientation, and g) source of help and assistance; and 3) teacher-student interaction, i.e. a) communication of goal structure, b) what behaviors are encouraged by praise, criticism and example. The purpose for using the Structures Observation Instrument was to identify the cooperative learning opportunities within the classroom.

Use of this instrument required trained observers. Two bilingual observers familiar with classroom environment were trained by Cordero (1978). Johnson and Johnson's (1975) suggestions for training in the use of the observation schedules were followed. Training included discussion of all three goal structures as well as the categories and behaviors in each structure. Definitions and examples were provided for the trainees. The observers then practiced using the observation schedules with videotapes of classrooms available through the district. Follow-up meetings during the observation process were called to help resolve any problems in scheduling or making judgments. After twelve hours of training (six two-hour sessions), the observers were randomly and

blindly assigned to the subjects participating in the study.

Sixty subjects participated in the study. It was decided to do two twenty-minute observations of each teacher. The observations were scheduled over a two and a half month period during the spring following the training sessions in the fall. For each observation the observers were instructed to mark their observation schedules every seven minutes. The subjects knew that the observations were to be conducted and were further notified as to the week the observers would be at their school. Six teachers in the original treatment group refused the observers entry to their classroom. This resulted in a change in the sample size being observed. Since the independent variable under consideration was cooperative behaviors, only the percentage of cooperation was analyzed. The results were compared by treatment groups and by ethnic groups.

This concludes the discussion of Cordero's (1978) study and the instruments used to identify the participants' 1) cooperative self-perception, 2) cooperative response in a dilemma situation, and 3) ability to provide cooperative learning opportunities in the classroom. A formulation of the operational hypotheses follows.

Formulation of Operational Hypotheses. Following a review of the literature on cooperation and competition among Mexican, Mexican-American and Anglo-American children, the following hypotheses were formulated for investigation in the present study:

H_1 There will be no relationship between the 1) teachers' cooperative self-perception, 2) cooperative response in a dilemma situation, 3) ability to provide cooperative learning opportunities in the classroom, and the achievement of Mexican students in the areas of reading and math.

H_2 There will be no relationship between the 1) teachers' cooperative self-perception, 2) cooperative response in a dilemma situation, 3) ability to provide cooperative learning opportunities in the classroom, and the achievement of Mexican-American students in the areas of reading and math.

Subjects. The subjects for the study were the students enrolled in the classes of the two treatment groups and the control groups in Cordero's (1978) study. The students were selected under guidelines set forth by the Lau Task Force Remedies (1975) formulated in direct

response to the Lau v. Nichols decision. Identification of these students is made on the basis of language. (See Figure 5.)

A. Monolingual speaker of the language other than English speaks the language other than English exclusively. (NES) These would be comparable to the students Ramírez and Castañeda (1974) identify as belonging to the traditional community and Buriel (1975) places in first generation. These students are generally from families in the lower SES income level.

B. Predominantly speaks the language other than English. Speaks mostly the language other than English, but speaks some English. (LES) These students would still identify with the traditional community, but could possibly belong to what Buriel (1975) refers to as second generation. These students are still for the most part from families in the lower SES income level.

C. Bilingual. Speaks both the language other than English and English with equal ease. (B) These students would identify with the dualistic community but would not be as identified with the culture as Buriel's (1975) third generation population. The families of these students would be leaving the barrio soon. They are still generally in the low SES group, but the parents have steady employment.

D. Predominantly speaks English. Speaks mostly English, but some of the language other than English. (LSS) These students would identify with Ramirez's (1974) atraditional community and with Buriel's (1975) third generation. The parents are employed and SES is dependent on previous schooling. This is where the Chicano professional or the Chicano on welfare is found.

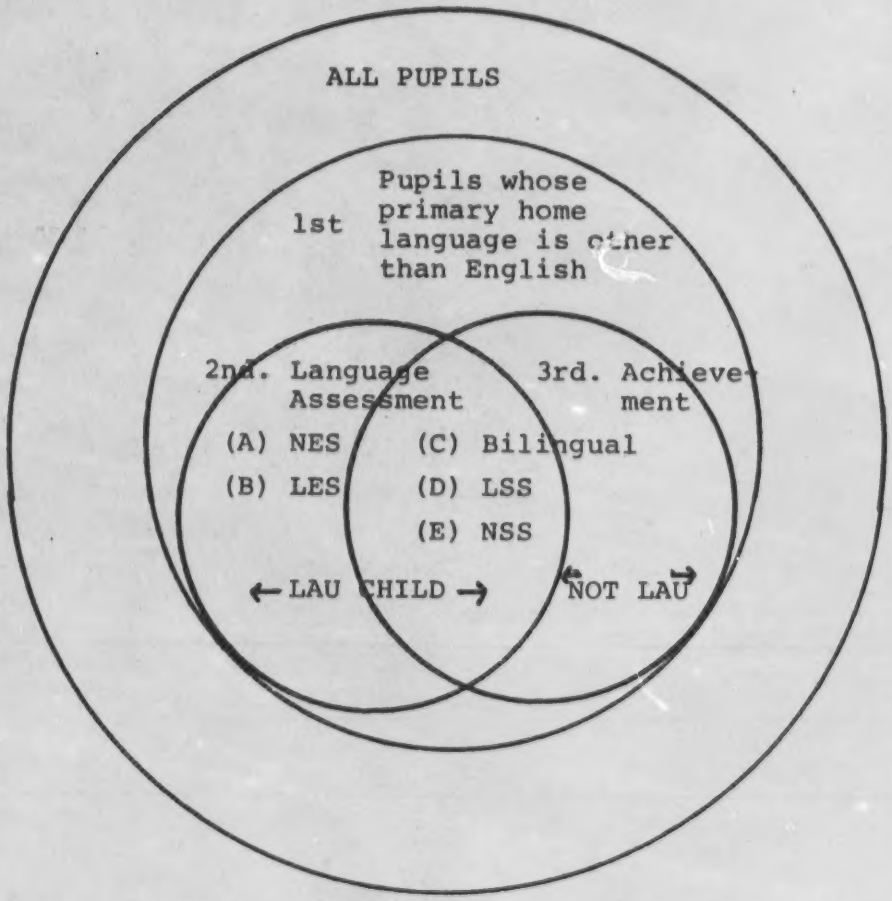


Figure 5. DEFINITION OF A "LAU CHILD." Any pupil whose primary/home/first language is other than English who is achieving below grade level is a "Lau child." The only exception would be the youngster who is either fully bilingual, predominantly speaks English (LSS), or monolingual English speaking, whose lack of achievement is attributable to something other than previous language deficiencies, i.e. hearing loss, blindness, etc.

E. Monolingual speaker of English. Speaks English exclusively. (NSS) These would be the Anglo and "other" student. Chicanos in this category have assimilated. Income level would be middle or upper SES.

The foregoing identification provides some control over SES.

The investigator identified K-6 students in "bilingual settings" and explored whether there was a relationship between their achievement in the areas of reading and math and the teaching styles exhibited by their teachers in the classroom as determined by Cordero's (1978) identification.

Demographic Data. The county where this study was conducted is sixty (60) miles north of Los Angeles, California. The economy of the community where the majority of the subjects reside is based primarily on agriculture and related industries. The population is growing steadily. The Spanish surnamed population has grown from 54 percent in 1975 to 56.85 percent in 1977 and 61.7 percent in 1978. The census data from 1975-1977 indicates a 2 percent yearly increase in Spanish surnamed pupils, a 1 percent decrease in Black pupils and a 2 percent yearly decrease in Anglo pupils. The county ranks seventh in the state in Spanish surnamed students.[5]

Summary

In this chapter the writer attempted to describe the research design by giving an overview of Diane Cordero's (1978) study in which she categorized teachers participating in her study as to their 1) cooperative self-perception, 2) cooperative response in a dilemma situation, 3) and ability to provide cooperative learning opportunities in the classroom. The writer proceeded to outline the manner in which the students enrolled in these teachers' classrooms were to be identified on the basis of language. Operational hypotheses were formulated regarding the relationship of the achievement of Mexican and Mexican-American students in the areas of reading and math and the goal structures within the classroom.

FOOTNOTES

1. Diane Cordero, "The Relationship of Confluent Education and Cooperation in the Bicultural Classroom," paper presented to Dr. George Brown at the University of California, Santa Barbara, April, 1977, pp. 42-44.

2. T. Yeomans, Toward A Confluent Theory of the Teaching of English, Ph.D. Dissertation, University of California, Santa Barbara, 1973.

3. K. Thomas, Issues in Management of Conflict, proceedings of the fifteenth annual research conference in industrial relations, University of California, Los Angeles, March, 1973.

4. R. D. Luce and H. Raiffa, Games and Decisions, New York: John Wiley, 1957, p. 95.

5. Oxnard Elementary School District, Proyecto de Culturas Unidas, Title VII Application, 1978.

CHAPTER VII

DELIMITATIONS AND THE INTERNAL AND EXTERNAL VALIDITY OF THE STUDY

In this chapter, the investigator will consider the delimitations of the study and its internal and external validity.

DELIMITATIONS OF THE STUDY. The present study attempts to determine if there is a relationship between student achievement and various ethnic and profile characteristics of the student and teachers.

1. Classification Limitations. The assignment of students to bilingual classes and/or settings was based on their identification as non-English speaking (NES) and limited English speaking (LES). Identification was made during 1976-1977 and updated during the 1977-1978 school year. For the 1977-1978 school year only new enrollees in the district were assessed. Students classified as NES for the 1976-1977 school year could well have been LES a year later by the mere fact of having been exposed to the English language for one full year.

2. Instrumentation Limitations. The students were assessed for language dominance for 1976-1977 school

year using a district-developed instrument which had not been field tested. Identification for 1977-1978 school year was done with the San Diego Observation and Assessment Instrument (SDOAI) which was field tested on 20,000 students. As stated before, this instrument was used only to assess new enrollees. The expense in retesting over 2,000 students would "have been prohibitive." A waiver was requested and granted by the state.

The instruments selected to measure cooperative response in teachers, that is, The Behavior Description Questionnaire (BDQ), the Prisoner's Dilemma Game (PDG), and the Classroom Observation Instrument, were chosen because they were the most direct measures of cooperative self-perception and cooperative behavior. However, they do not have established reliability or validity at the present time. Therefore, the results based on these tests must be viewed with caution until the instruments are either more fully refined or other tests with equal or greater appropriateness can be found.

Although the students' language dominance was identified, the teachers' proficiency in the language other than English was not considered. All bilingual classes and/or settings have a bilingual aide for a period of time ranging from three to six hours a day.

Since the teacher is the person primarily responsible for instruction, the focus was on the teacher and the affect she had on student achievement. The assumption was made that the Chicano teacher taught bilingually.

These limitations make all conclusions and statements of implications and generalizability tentative and suggestive only.

Internal and External Validity. "Internal validity is the basic minimum without which any experiment is uninterpretable."[1]

Did, in fact, the experimental variable make a difference in this specific experimental design? Campbell and Stanley (1963) outline eight categories of extraneous variables which can affect internal validity. If the experimental design does not control these variables, their effects could be confused with the effects of the experimental variables. A brief explanation of these variables is presented here with an explanation of how they were controlled in this study.

1. History. This refers to specific events occurring between the first and second measurement in addition to the experimental variable. The posttest class score design would seem to control this variable. However, there were certain conditions existing in the

district during the time of the treatment and observation of the first study (Cordero, 1978) from which identification of teachers for the present study was made that might have affected the teachers' attitudes and behaviors in the classroom. Specifically, the conditions were:

a. The Bilingual Coordinator for the District bilingual program was interviewed for a lengthy article on bilingual education which appeared in the local newspaper. In the article the Coordinator was quoted as suggesting that instruction in "bilingual settings" with a monolingual teacher assisted by a three hour aide was less than adequate to meet the needs of limited and non-English speaking students. The article generated some negative feelings on the part of monolingual teachers in bilingual settings who had participated in the experimental as well as the control groups.

b. There was an adverse political situation in the district. Six months had transpired and the teachers did not have a contract for the current year. Teachers in bilingual settings were advised by the local Union Chapter that they had been placed on a two year waiver and were being required to enroll in a program which would lead to a certificate of competence in the areas of proficiency in the target language, knowledge of

teaching methodology in bilingual classrooms, and familiarity with the culture of the target population. Teachers were further advised that they had a right to refuse such a waiver and that it was the district's responsibility to provide training at district time and expense leading them to the required competency. Although members of the original treatment groups were aware of their being on waivers, they were also aware of the consequences resulting from refusing the waiver. Refusal of the waiver did not entail loss of employment, but rather the placing of teachers in a "pool" to be assigned to any school which had an opening in a nonbilingual setting.

Although a posttest class score design was used in the study, since the participating teachers and students were drawn exclusively from bilingual classes and/or settings, the negative and political climate described above might have had some effects on the results.

2. Maturation. This refers to processes within the respondents operating as a function of the passage of time per se including growing older, growing hungrier, growing more tired, and the like. The use of a posttest class score design would appear to have controlled this variable.

3. Testing. This refers to the practice effects of a pretest on a posttest. Students will learn from a pretest and this effect will show on a posttest. Although only the posttest class score was used in the research design, there was a pretest given in the district. The variable of practice effect on the posttest score was not completely controlled in this study.

4. Instrumentation. This refers to changes in the calibration of measuring instruments or changes in observers or scorers which may produce changes in the data. The instruments used to measure achievement in reading and math were instruments used throughout the district in their regular testing program. The tests for the lower classes (K-3) are handscored, and the tests for the upper grades (4-6) are machine scored. Outside personnel are hired to score the K-3 tests. Tests are randomly assigned to the scorers. Results are reported through computer printouts sent to the district. The variable of instrumentation would seem to have been controlled in this study.

5. Statistical Regression. This variable refers to experiments in which treatment groups are selected on the basis of extreme groups. The effect of selecting teachers for the study on the basis of the different

magnitude of cooperative response as measured by the three instrument design used by Cordero (1978) would seem to be controlled by including cooperative response as an independent variable within the model.

6. Selection. Biases can result from differential selection of subjects for the comparison groups. Participants were students assigned to teachers who showed a cooperative response as measured by the three instrumental design used by Cordero (1978). There is a basic formula of two-thirds (2/3) NES/LES (non-English speaking/limited-English speaking) to one-third (1/3) FES (fluent-English speaking) student ratio in bilingual classes, and a minimum of ten (10) NES/LES students in bilingual settings. The only prerequisite for placement of NES/LES students in bilingual classes and/or settings is that they are identified as NES/LES through the use of some objective assessment instrument. Since assignment of Spanish-surnamed students to bilingual classes and/or settings is not randomly done, but rather based primarily on need for bilingual instruction, this variable is not completely controlled.

7. Experimental Mortality or Differential Loss of Respondents From the Comparison Groups. The loss of participants in the Observation phase of Cordero's (1978)

study affected the number of subjects participating in the present study. However, the research design only included the teachers who showed a cooperative response in each of three instruments, and did not include an intervention. The use of posttest class scores only controlled this variable.

8. Selection-maturation, Interaction. This occurs in some quasi-experimental designs where the control group and the experimental group do not have a preexperimental sampling equivalence and the results are interpreted as the effects of the intervention. Since there is no intervention in the research design of the present study and since only posttest class scores were used as the dependent variable, this item did not have an effect on the results and is therefore controlled.

Five of the eight extraneous variables influencing the internal validity of this study appear to be controlled. History, testing, and selection are only partially controlled and influence confidence in the findings.

External Validity. The factors jeopardizing external validity are:

1. The reactive or interaction effect of testing in which a pretest might increase or decrease the

respondent's sensitivity or responsiveness to the experimental variable. As was stated before, only posttest class scores were used in the research design, thereby controlling this variable.

2. Multiple-treatment Interference. This is likely to occur whenever multiple treatments are applied to the same respondents because the effects of prior treatments are not usually erasable. In including the training as an independent variable; that is, confluent, didactic and no training, other training that teachers may have received during the year and which could have affected student achievement, is excluded. Examples of such training would be:

a. Training in Madeline Hunter's motivational techniques.

b. Training in classroom methodology for bilingual education.

c. Training on cultural awareness of target population.

d. Training on assertive discipline.

e. Doing readings related to the educational needs of Spanish surnamed students.

Generalizability. Generalizability asks the question to what populations, settings, treatment variables, and measurement variables can this effect be generalized? The generalizability of the findings in this study would

appear to extend to the following:

1. Spanish-surnamed students identified as "A", "B", "C" and "D" and assigned to a bilingual class and/or setting in a public school grades K-6.

2. Public school teachers (K-6) involved in some form of bilingual education.

3. Public school teachers (K-6) and "A", "B", "C", "D" students (K-6) assigned to a bilingual class and/or setting in a community with agriculture as its main economy base.

The limitations discussed in this chapter make conclusions and generalizations tentative. Nevertheless, the emergence of some possible trends could provide suggestions for areas of further research and also suggest changes for consideration in the teacher training process.

FOOTNOTES

1. Donald T. Campbell and Julian C. Stanley. Experimental and Quasi-Experimental Designs for Research. Rand-McNally College Publishing Company, Chicago, Illinois, 1963, p. 5.

2. Ibid.

CHAPTER VIII

ANALYSIS AND INTERPRETATION OF THE DATA

This chapter presents the analysis and interpretation of the data in the present study. The object of this analysis is to determine if there is a relationship between student achievement and various ethnic and profile characteristics of the student and teacher.

The Dependent Variables. Two different dependent variables were considered. Since preclass test scores and postclass test scores were available, student improvement was computed as the simple difference between the two scores. The second dependent variable considered was the postclass test score by itself. An implicit assumption made here was that the student-teacher match was random. In other words, classes were not biased with either high achievers or low achievers, but consisted of random samples from the student population.

The Independent Variables. The first step in the procedure was to identify the independent variables and to determine if there was a relationship between student achievement and various ethnic and profile characteristics of the student and the teacher. Since the primary

concern in the study was the achievement of Mexican and Mexican-American students, classification was made in the following manner:

"A" - non-English speaking student.

"B" - limited English speaking student.

"C" - bilingual and/or fluent English Spanish-surnamed student achieving below Q_2.

(Q_2: 50th percentile on national norms for the tests used.)

"D" - bilingual and/or fluent English Spanish-surnamed student achieving above Q_2.

"E" - fluent English non-Spanish surnamed student.

The foregoing were the independent variables with respect to the students. The independent variables with respect to the teachers were as follows:

Cooperative Response. Cooperative response was determined by teacher response as recorded in the three-instrument design used by Cordero (1978). The Behavior Description Questionnaire (BDQ) consisted of 30 multiple choice questions. Each question had five (5) possible choices, two (2) cooperative and three (3) competitive. Cooperative response was then measured as a percentage of total responses. The Prisoner's Dilemma Game (PDG) instrument consisted of testing each instructor ten times and categorizing each response as either competitive

or cooperative. Cooperative response was again calculated as a percentage of total number of responses. The Observation instrument also facilitated calculating cooperative response as a percentage.

Teacher Training. The type of training the teacher experienced was also considered. The group variables are binary (0.1) variables. Group One represents the group that received the Confluent training, Group Two represents the group that received the Didactic training, and Group Three represents the Control group which received no training. (Refer to Pages 115-119 for overview of both Confluent and Didactic training.)

Ethnicity. Ethnicity within the model made reference to the teacher's being Chicano/Chicana.

Grade Level. The grade level taught by teachers in the above classifications also entered in as an independent variable. The proper interaction terms and crossed effects variables were taken into consideration.

Step-wise Regression Technique. To more specifically analyze the data so as to include all the information at hand, a multiple regression prediction technique was used. It is possible to have three, four or even more

independent variables in a multiple regression scheme. The independent variables included were only those which contributed to the model and were significant at the 5 percent level. Using score improvement as the dependent variable, no significant results were forthcoming. The explanatory power of the various regressions were all less than 5 percent. Using postscore as the dependent variable was far more significant. Since each instrument yielded different magnitudes of cooperative response for all teachers, three models were necessary. Examination of the correlation matrix revealed no values greater than .35. This precludes any severe degree of multicollinearity. Results for Reading will be discussed first, followed by Math results.

Figure 6. Results From Observation/Post-Reading Regression

Variable	Raw Score	Significant Level	Interpretation
Constant term	52.6	(5%)	The mean effect of all omitted variables and the mean of post reading score.
Cooperative response	0.524	(5%)	Cooperative response contributes to post reading score in a positive way and highly significant.

Variable	Raw Score	Significant Level	Interpretation
Confluent training (Group One)	-2.68	(8%)	A teacher from this group had a negative influence on reading score. The influence was significant.
"A" student	-30.44	(5%)	As anticipated, the progression from "A" to "C" (English-speaking) of the student decreased the negative influence on post reading score. All three parameters are significant at the 5% level.
"B" student	-20.88	(5%)	
"C" student	-15.87	(5%)	
			The crossed effects of grade level and cooperative response were biased and inconclusive.
"B" student and Chicano teacher	3.95	(5%)	Performance of a "B" student exposed to a Chicano teacher was influenced positively and significantly on reading score.
"D" student and Chicano teacher	-4.45	(10%)	Performance of a "D" student receiving instruction from a Chicano teacher was negatively and significantly influenced on reading score.
"A" student and Didactic teacher	5.34	(10%)	Results of a Group 2 teacher and "A" student combination were positive and significant.

Variable	Raw Score	Significant Level	Interpretation
"A" student and cooperative teacher	-0.33	(5%)	A cooperative teacher had a negative impact on the reading score of about the same magnitude on an "A" or "B" student. Both values are significant at the 5% level.
"B" student and cooperative teacher	-0.36	(5%)	
"D" student and cooperative teacher	0.26	(5%)	A cooperative teacher contributed positively to the reading score of a "D" student.
R^2 = .46			For cross section data an R^2 value greater than 0.3 is very respectable.
N = 962			

Figure 7. Results From PDG/Post-Reading Regression

Variable	Raw Score	Significant Level	Interpretation
Constant term	54.71	(5%)	Mean effect of all omitted variables and the mean of post reading score.
"A" student	-30.39	(5%)	As anticipated, as reading (speaking) ability improved, post score improved. This is an expected result.
"B" student	-23.21	(5%)	
"C" student	-14.88	(5%)	
"D" student	2.77	(5%)	
Cooperative teacher/ Grade One	-0.15	(5%)	At higher grade levels, the positive influence of cooperative teachers is evident.
Cooperative teacher/ Grade Four	-0.05	(5%)	
Cooperative teacher/ Grade Five	0.05	(5%)	
"A" student and Chicano teacher	-5.31	(10%)	Result seems to suggest that Mexican students do not respond well to Chicano teachers.
"D" student and Chicano teacher	-8.79	(5%)	Result seems to suggest that Chicano students do not respond well to Chicano teachers.

Variable	Raw Score	Significant Level	Interpretation
"D" student and Confluent teacher	5.74	(10%)	Teachers with the Confluent training had a positive influence on "D" students.

R^2 = .41
N = 1123

Figure 8. Results From BDG/Post-Reading Regression

The BDQ did not facilitate the use of interaction or crossed effects variables due to singularity and very unstable parameter values.

Variable	Raw Score	Significant Level	Interpretation
Constant term	54.7	(5%)	Mean effect of all omitted variables and the mean of post reading score.
Didactic teacher Group Two	-2.96	(5%)	Teachers who received Didactic training had a negative influence on reading scores.
"A" student	-32.74	(5%)	This is consistent with previous results. As reading (speaking) ability improved, post scores improved. This is an expected result.
"B" student	-22.8	(5%)	
"C" student	-15.75	(5%)	
"D" student	5.86	(5%)	

R^2 = .38
N = 1180

Figure 9. Results From Observation/Post-Math Regression

Variable	Raw Score	Significant Level	Interpretation
Constant term	53.75	(5%)	The mean effect of all omitted variables and the mean of post-math scores.
Confluent training (Group I)	4.72	(5%)	Teachers with the Confluent training contributed positively to post math scores.
"A" student	-22.47	(5%)	As anticipated, the progression from "A" to "B" decreased the negative influence on post-math scores. The students' ability to understand the language improved the scores. Lack of facility in the language does not seem to be the case with the "C" student.
"B" student	-09.24	(5%)	
"C" student	-13.79	(5%)	
Cooperative teacher/ Grade One	-1.42	(5%)	Cooperative teachers have a negative influence on post-math scores in lower grades. Positive influence is evident at higher grade levels.
Cooperative teacher/ Grade Two	-0.71	(5%)	
Cooperative teacher/ Grade Three	-0.32	(5%)	
Cooperative teacher/ Grade Four	2.27	(5%)	

Variable	Raw Score	Significant Level	Interpretation
Cooperative teacher/ Grade Five	1.55	(5%)	
Cooperative teacher/ Grade Six	0.14	(5%)	
Cooperative teacher/ Grade Seven	0.39	(5%)	
"A" student and Chicano teacher	14.26	(5%)	Seems to suggest that in math, "A" student responds positively to Chicano teacher. This is in contrast to "A" students' negative response in reading. (See discussion on page 164.)
"C" student and cooperative teacher	0.21	(5%)	A "C" student's receiving instruction from a cooperative teacher had a positive influence on post math scores.
"D" student and cooperative teacher	0.19	(5%)	A "D" student's receiving instruction from a cooperative teacher had a positive influence on post math scores.

$R^2 = .37$
$N = 938$

Figure 10. Results From PDG/Post-Math Regression

Variable	Raw Score	Significant Level	Interpretation
Constant term	53.62	(5%)	Mean effect of all omitted variables and the mean of post math scores.
Confluent training (Group One)	4.59	(5%)	Teachers with Confluent training contributed positively to post math scores.
Didactic training (Group Two)	-1.64	(5%)	Teachers who received Didactic training had a negative influence on post math scores.
"C" student	-10.83	(5%)	The "C" student continues to get a negative score.
"D" student	3.10	(10%)	The "D" student continues to get a positive score, as anticipated.
Cooperative teacher/ Grade One	-0.40	(5%)	Cooperative teachers have a negative influence on post-math scores in lower grades. Positive influence is evident at higher grades.
Cooperative teacher/ Grade Two	-0.19	(5%)	
Cooperative teacher/ Grade Three	-0.14	(5%)	
Cooperative teacher/ Grade Four	0.17	(5%)	

Variable	Raw Score	Significant Level	Interpretation
Cooperative teacher/ Grade Six	0.13	(5%)	
Cooperative teacher/ Grade Seven	0.06	(10%)	
"A" student and cooperative teacher	-0.24	(5%)	A cooperative teacher instructing a class of "A" or "B" students had a negative impact on post math score.
"B" student and cooperative teacher	-0.09	(5%)	

R^2 = .43
N = 1092

Figure 11. Results From BDG/Post-Math Regression

Variable	Raw Score	Significant Level	Interpretation
Constant term	38.59	(5%)	Mean effect of all omitted variables and the mean of post math scores.
Cooperative response	22.82	(5%)	Cooperative response contributes to post math score in a positive and highly significant manner.
Confluent training (Group One)	10.22	(5%)	Teachers with Confluent training contributed positively to post math scores.
Didactic training (Group Two)	-4.38	(5%)	Teachers who received Didactic training had a negative influence on post math scores.
Chicano teacher	5.81	(5%)	The teacher identified as Chicano had a positive influence on post math scores.
"A" student	-16.79	(5%)	The progression from "A" to "D" decreases the negative influence on post math scores.
"B" student	-10.13	(5%)	
"C" student	-08.86	(5%)	
"D" student	4.14	(5%)	

R^2 = .17
N = 1149

Summary

In this chapter the dependent and independent variables have been identified with respect to the teachers and the students included in the study. This was followed by a brief description of the Step-wise Regression technique utilized in analyzing the data. Finally the results obtained from the different models and the significance levels are presented in Figures 6 through 11.

CHAPTER IX

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A central task of educational research is to discuss the nature of relationships between educational variables. This chapter presents a summary of the present study, interprets and draws conclusions with respect to the findings, and makes recommendations for further research.

Summary. The purpose of this study was to determine whether there is a relationship between student achievement and specific ethnic and profile characteristics of the student and the teacher. Ramírez' and Castañeda's (1974) research provided a theoretical base for addressing this question. One aspect of their research on field dependence/field independence, that is, cooperative vs. competitive interpersonal style, was selected for further investigation. This study investigates the relationship between ethnicity and achievement within cooperative vs. less cooperative goal structured classrooms.

received the Didactic training; and Group Three served as the control group and received no training. (Refer to pages 116-119 for overview of Confluent and Didactic training.)

Ethnicity. The model made reference to the teacher's being Chicano/Chicana.

Grade Level. Grade level taught by teachers included in the study was identified.

Each independent variable was analyzed separately in relation to the dependent variable as it became evident that analysis of a general profile of independent variables and the dependent variable would not be appropriate. To analyze the data so as to include all the information at hand, a multiple regression prediction technique was used. The group of independent variables included only those which contributed to the model and were significant at the 5 percent level. Post scores on the California Test of Basic Skills (CTBS) in English reading and math were used as the dependent variable. In identifying cooperative response Cordero (1978) used three instruments: an Observation instrument, a Prisoner's Dilemma Game (PDG), and a Behavior Descriptive Questionnaire (BDQ). Since each instrument yielded different magni-

tudes of cooperative response for all teachers, six models were necessary, three for post-reading regression and three for post-math regression.

Interpretation of Results. The constant term was significant at the 5 percent level across the six models (see Figures 6-11). Cooperative response on the Observation instrument relates in a positive way at a 5 percent level of significance to post-reading score and post-math score. (See Figures 6 and 11.) In the first three models, "A", "B", and "C" students obtained negative on post-test reading scores. (See Figures 6, 7, 8.) This, however, was expected, since the testing instrument was in English. The progression from "A" to "C" (English-speaking) decreased the negative influence as reading (speaking) ability improved. Since the sample of students is taken from a "bilingual setting," this result would indicate a steady sequential acquisition of English as a second language. The "C" student, though still achieving below Q_2, shows a steady progression towards the mean. The same progression is evident in the post-math regression. (See Figure 11.)

Through the process of acculturation it is expected that with succeeding generations the cognitive style of Mexican-American children will become

increasingly field independent with greater exposure to the influence of Anglo-American culture (Knight and Kagan, 1977; Ramírez and Castañeda, 1974; Dershowitz, 1971). (See pages 89-92.) The findings of the present study do not support this view. (See pages 89-92.) On the contrary, findings are similar to those of Buriel (1975) who looked at first, second and third generation Mexican-Americans and found second and first generations to be more field independent and closer to an Anglo-American norm of greater field independence. In Figures 7, 9, and 10 it is evident that a cooperative teacher has a negative influence on post-reading scores and post-math scores in the lower grades and a positive influence in the upper grades. It would seem then that the Mexican and Mexican-American students experience greater success in the lower grades (K-2) with a competitive teacher, and in the higher grades with a cooperative teacher. This is a direct reversal of the acculturation model. The positive influence of "D" student and a cooperative teacher further supports the reversal, for the "D" student would represent Ramírez' and Castañeda's (1974) atraditional community, and Buriel's (1975) third generation who has become field dependent in their style of learning and more responsive to the cooperative teaching style.

Buriel sees third generation Mexican-Americans acculturating more to the life style of the barrio or community rather than to the Anglo-American culture. The findings in this study would tend to support Buriel's theory of greater field independence with first and second generation students and greater field dependence with third generation students.

Figure 7 shows the "A" student and Chicano teacher having a negative influence on the model. This result is anticipated since the "A" student in a bilingual setting has not made the transition, is being taught in Spanish and tested in English. The negative score in English reading is a logical outcome. In contrast, the "A" student and Chicano teacher have a positive influence on the model in post-math regression (see Figure 9). This again could be the result of the use of a language other than English in the teaching of math. The positive influence would be in the universality of math symbols once the concept has been understood in the student's primary language.

Interestingly enough, Figure 6 shows the "B" student and Chicano teacher having a positive response in reading scores, while Figure 7 shows the "D" student and Chicano teacher having a negative response. It

appears that with time and years of education in the U. S. system, the Mexican-American who reaches the level of the teaching profession has internalized the values and attitudes of the dominant culture in order to survive and indeed find some measure of success. The assumption would be that the Chicano teacher is competitive in his/her goal structure orientation. This would be in agreement with the Civil Rights Commission Report (1973) which found that the Chicano teacher was much more demanding of the Spanish-surnamed child and would indicate that the "B" child who, according to the model prefers a competitive teacher, responds to this demand (as seen in the positive influence on reading scores when paired with a Chicano teacher). The positive influence on reading scores could also indicate the effects of bilingual instruction by a Chicano teacher, since the "B" student is in a transitional stage from Spanish to English reading. A role model and the self-fulfilling prophecy could also be influencing the positive score. The "D" student is achieving on his own and does not seem to need a Chicano role model. He would achieve under almost any condition. This would be the student whose parents now form the atraditional community of which Ramírez and Castañeda (1974) speak. They no longer identify but rather tend to deemphasize

their ethnic heritage. It could be that the students are reflecting the feelings of their parents who have assimilated and no longer wish to be identified with persons of their heritage. Or it could simply be the "D" student's preference for a cooperative goal structure. Further research is needed in this area.

Confluent training in three of the models had a positive influence on achievement in math (see Figures 9, 10, 11). The teacher with confluent training had a negative influence on the reading scores (see Figure 6) but when paired with "D" students had a positive impact. It is doubtful whether the negative influence on reading scores was the result of confluent training. In Newark, California, a three year project was undertaken to introduce a confluent reading curriculum to a sample group of students. The first year there was no significant difference when teachers received general training in confluent strategies. A further step was taken: students' individual weaknesses in reading were analyzed. Confluent strategies were utilized to teach the skills in which the students were weak. In the second year of the project the teachers began to realize positive gains in reading scores. In the third year these gains were again demonstrated with new classes. The teachers had increased their skill in

developing an individualized and effective reading program.[1] In an effort to safeguard for external validity, the teachers in Cordero's (1978) research were unaware of their participation in a study. The treatment was offered as an extension three quarter unit course. This limited the treatment to three hours a week for ten consecutive weeks. With a treatment period of thirty (30) hours, teachers in the present study would not have been equipped sufficiently with the knowledge of Confluent philosophy and strategies to implement a confluent approach to teaching reading, a more difficult skill in itself to teach.

Teachers with didactic training also had a negative influence on reading scores (see Figure 8) but when paired with the "A" student had a positive effect (see Figure 6). The "A" student could have been responding to the more competitive teaching style of the didactic teacher. The "D" student would seem to achieve under any conditions except when she/he is paired with a Chicano teacher. In contrast, the "C" student has a negative influence in all reported conditions except one--when paired with a cooperative teacher in post-math regression (see Figure 10). This again is in agreement with Buriel's (1975) findings. The "C" student would compare with Buriel's third generation community: he has become field

dependent in his cognitive style and more responsive to cooperative goal structure.

Conclusions. A central task in educational research is to discover the nature of relationships between educational variables. On the basis of the findings in the present study, the operational hypothesis stated in the research design and restated here may be rejected.

H_1 There will be no relationship between the 1) teacher's cooperative self-perception, 2) cooperative response in a dilemma situation, 3) ability to provide cooperative learning opportunities in the classroom, and the achievement of Mexican students in the areas of reading and math.

H_2 There will be no relationship between the 1) teacher's cooperative self-perception, 2) cooperative response in a dilemma situation, 3) ability to provide cooperative learning opportunities in the classroom, and the achievement of Mexican-American students in the areas of reading and math.

A significant relationship was found between cooperative response and the achievement of Mexican and Mexican-American students in a bilingual setting in both

the areas of reading and math. Mexican and Mexican-American students respond negatively to a cooperative teacher in the lower grades (K-2) and positively in the upper grades (3-6). The reverse then is held to be true: Mexican and Mexican-American students respond positively to the competitive teacher in the earlier grades and respond negatively to the competitive teacher in the upper grades. Influence, both positive and negative, was at the 5 percent level of significance.

The findings would seem to indicate that confluent or similar training can contribute to raising the teacher's level of awareness to the needs of the Mexican and Mexican-American student, seeing him/her as a whole person and recognizing his/her cognitive and motivational learning styles within the different grade levels in the educational process. The training of teachers should include an awareness of preferred goal structures and strategies by which these goal structures may be implemented in the classroom. Rather than matching students who prefer cooperative goal structures to teachers who may be competitive in their approach, teachers should receive training in both to enable them to utilize appropriate goal structures responding to the needs of students at different grade levels.

There would seem to be a need for sensitivity to both cooperative and competitive modes and to apply the appropriate mode with students in content areas. The results of the present study indicate that math might be taught confluently and reading didactically with the exception of the "D" student who responds positively to a confluent teacher. It appears that Mexican and Mexican-American students prefer competitive motivational style and goal structures in the lower grades and cooperative motivational style and goal structures in the upper grades. The instruments used in identifying cooperative motivational style do not have established reliability or validity at the present time. Further research is needed in this area using instruments either more fully refined or tests with greater appropriateness to measure the behaviors under investigation.

The continuous progression towards the norm in both reading and math would seem to indicate that bilingual settings are assisting the student in the acquisition of reading skills in English. However, data indicating whether this acquisition is greater than in a nonbilingual setting is not available due to lack of a comparison group. Further research is needed.

A bilingual setting with a Chicano teacher who is bilingual yields positive results in the areas of reading

and math. The negative influence in reading scores with the "A" student is canceled by the fact that this can be primarily attributed to the language of the test--testing is in English for students receiving instruction in Spanish. The findings further seem to indicate that the use of the language other than English within the bilingual setting is not the only factor that has a positive influence in reading and math scores. Results of this study show that motivational learning styles seem to contribute at a significant level.

Recommendations. These recommendations for further research are based on the findings and conclusions drawn in the preceding section.

1. A replication of the study should be made using instruments to identify teachers' preferred teaching style which have more explanatory power than the instruments used by Cordero (1978).[2]

2. Followup research is needed to determine whether students were in effect competitive in their motivational style in the lower grades or just responding to a competitive style.

3. Further research is needed using more clearly defined bilingual classes (example: Title VII) and comparing these classes with non-Title VII classes. This

would enable the investigator to include as a variable the bilinguality of both the teacher and the students being taught in the language other than English and allow for specific analysis of the motivational and cognitive learning styles and its relationship to achievement.

4. Further research is needed in the area of bilingual education using clearly defined bilingual classes being compared with nonbilingual classes using as the independent variable the use of the language other than English in the instructional program.

5. Although "A", "B", "C" students seem to demonstrate steady progression towards decreasing the negative influence of not knowing the language of instruction which is being tested, there is no evidence that this is an effect of the "bilingual setting" or a process of natural maturation through contact with the dominant culture. More research is necessary in the area specifically involving bilingual education.

6. Longitudinal studies are needed using matched comparison groups to determine the kinds of students who respond to a confluent approach in teaching and the age levels at which this response is maximized.

Summary

This chapter has included the summary of the present study, interpretation and tentative conclusions with respect to the findings, and recommendations for further research. Although this research is of importance and relevance for anyone working with Mexican and Mexican-American students, it is crucial for the teachers in elementary bilingual bicultural classrooms which give priority to limited and non-English speaking students. The results of this research would seem to provide one more piece to the puzzle of the nature of relationships between educational variables and would seem to indicate systematic differences in social motivations existing between ethnic student population.

The task is left for future research to systematically explore and further ascertain whether the types of learning environment provided in schools is more or less effective given differences in the relative dominance of various motives.

FOOTNOTES

1. Joseph Roberts, "Confluent Education Project in Reading," Title IV, Part C, #1647, Newark Unified School District, Project Summary: 1974-1977, August 30, 1977.

2. Diane Cordero, "The Effects of a Confluent and Didactic Training Component on Mexican-American and Anglo-American Teacher Cooperation." Unpublished Dissertation in partial satisfaction of the requirements for the degree of Doctor of Philosophy, University of California at Santa Barbara, July, 1978, p. 129.

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APPENDIX A

"I AM A MEXICAN"

While a majority of the Spanish-speaking people in the Southwest were born in this country and are citizens of the United States, they tend to be regarded both by themselves and others as Mexicans. The term Mexican-American would be more nearly accurate. More important than technicalities, however, is how they feel. . . how they regard themselves.

ME

To begin with, I am a Mexican. That sentence has a scent of bitterness as it is written. I feel that if it weren't for my nationality I would accomplish more. My being a Mexican has brought about my lack of initiative. No matter what I attempt to do, my dark skin always makes me feel that I will fail. Another thing that "gripes" me is that I am such a coward. I absolutely will not fight for something even if I know I'm right. I do not have the vocabulary that it would take to express myself strongly enough.

Many people including most of my teachers, have tried to tell me I'm a leader. Well, I know better! Just because I may get better grades than most of my fellow Mexicans doesn't mean a thing. I could no more get an original idea in my head than be President of the United States. I don't know how to think for myself.

I want to go to college, sure, but what do I want to be? Even worse, where do I want to go? These questions are only a few that trouble me. I'd like to prove to my parents that I can do something. Just because I don't have the gumption to go out and get a job doesn't mean that I can't become something they'll be proud of. But if I find that I can't bring myself to go to college, I'll get married and they'll still get rid of me.

After reading this, you'll probably be surprised. This is the way I feel about myself, and nobody can change

me. Believe me, many have tried and have failed. If God wants me to reach my goals, I will. No parents, teachers, or priest will change the course that my life is to follow. Don't try.

This was a paper turned in by a 13-year old girl for an English assignment in the eighth grade.

APPENDIX B

WHO AM I?

After I tell you who I am you may not know me. You may not recognize me. You may deny that I exist. Who am I? I'm a product of myself. I'm a product of you and of my ancestors.

Now, one half of my ancestors were the Spanish who were Western European, but who were also part African and part Middle Eastern. They came to this country and met with the other side of my family--the Indians. The Indians also were a great race--people of a great culture. There were many kinds of Indians, as there were many kinds of Spaniards. They mixed, they married, they had children. Their children were called Mestizos, and this is what I am.

We came to California long before the Pilgrims landed at Plymouth Rock. We settled California and all of the southwestern part of the United States including the states of Arizona, New Mexico, Colorado, and Texas. We built the missions, and we cultivated the ranches. We were at the Alamo in Texas, both inside and outside. You know, we owned California--that is, until gold was found here.

I think it was a mistake to let you into the southwestern states, because eventually you took away our lands. When we fought to retain what was ours, you used the vigilantes to scare us away, to hang us, and to take away our lands. We became your slaves. Now we cook your food, we build your railroads, we harvest your crops, we dig your ditches, we stand in your unemployment lines--and we receive more than 20 percent of your welfare. But we've done some good things, too. We won more Medals of Honor during World War II than any other ethnic group. We've never had a turncoat, even during the Korean War. Yes, we have had outstanding war records. But, you know, we don't complain. By the same token, we don't get much attention, either.

We don't live in your neighborhoods unless we let you call us Spanish, French, or something else, but not what we are. We usually attend our own schools at the elementary or junior high level; and if we get to high school we may go to school with you. However, even before we finish, high school, more than 50 percent of us drop out, and you know we don't go to college. We make up less than 1 percent of the college students, yet we are 12 percent of the total school population. We don't use government agencies because our experiences with them have been rather poor; they haven't been very friendly or helpful. The Immigration Department has never really been our friend. The land offices help to take away our lands--we couldn't exactly call them friendly. The Farm Labor Bureau has never truly served us. The schools haven't really lifted us educationally. The police--well, they haven't been the most cooperative agency in the government either. You accept our Spanish words as long as we don't speak them, because if we do, you say they're "poor" Spanish--not Castilians so our language can't be very good--it's almost like swearing. We are usually Catholics and sometimes Protestants, but in either case we have our own churches. You say we can leave our barrios to live near you that is, only if we stay in our own place. When we attend your parties to meet your friends, you usually introduce us as being Spanish or something else that we are not. You are ashamed of what we are, and your attitude makes us feel that we, too, should be ashamed of what we are. When we go to school, we don't take part in your school activities; we don't think we're wanted. We seldom participate in sports; we don't run for student offices; don't go to your school dances; we aren't valedictorians at graduations; we seldom win recognition as students, even in Spanish we seldom receive scholarships; we are seldom given consideration in school plans; we are seldom given lead parts in school plays. The higher in education we go the more obvious are the double standards; yet, we haven't given up.

Who are we? Some call us the forgotten people; others call chili snappers, tacos, spics, mexs, or greasers. Some ignore and pretend that we don't exist. Some just wish that we would go away. The late U. S. Senator Chavez from New Mexico once said, "At the time of war we are called the great patriotic Americans," and during elections politicians call us "the great Spanish

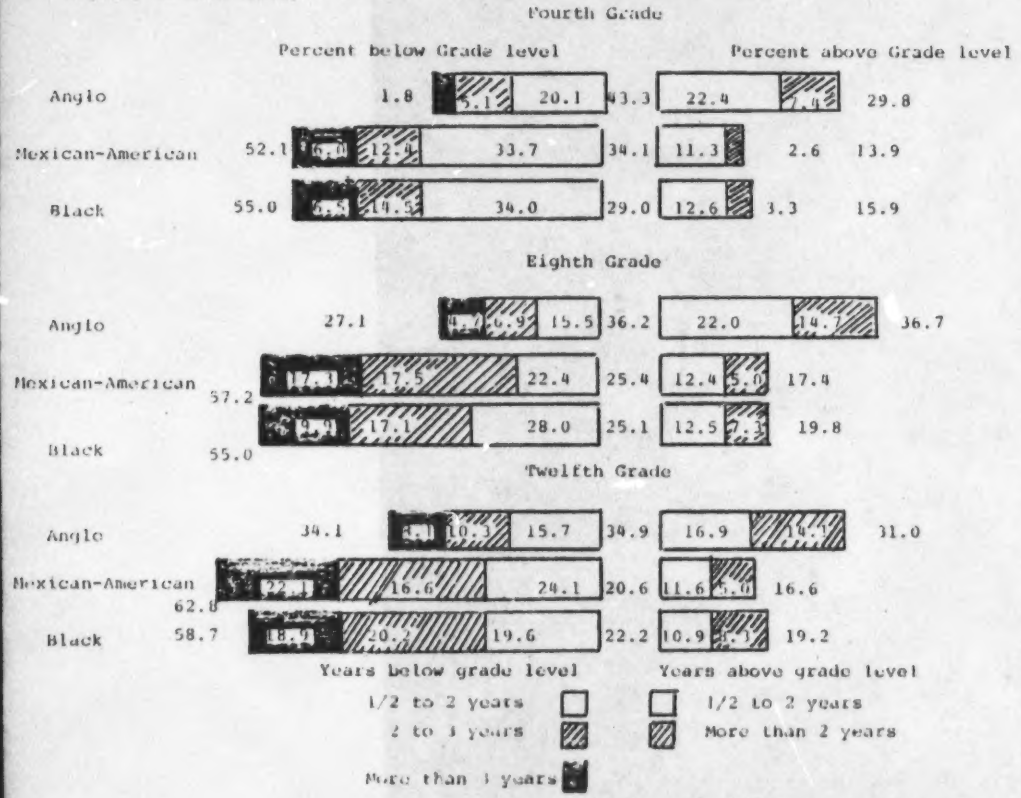
speaking community of America." When we ask for jobs, we are called "those damn Mexicans."

Who am I? I'm a human being. I have the same hopes that you have, the same fears, same drives, same desires, same concerns, and same abilities. I want the same chance that you have to be an individual. Who am I? In reality, I am who you want me to be.

APPENDIX C

ESTIMATED READING LEVELS IN CALIFORNIA

(From Report of the United States Commission on Civil Rights, October 1971)



APPENDIX D

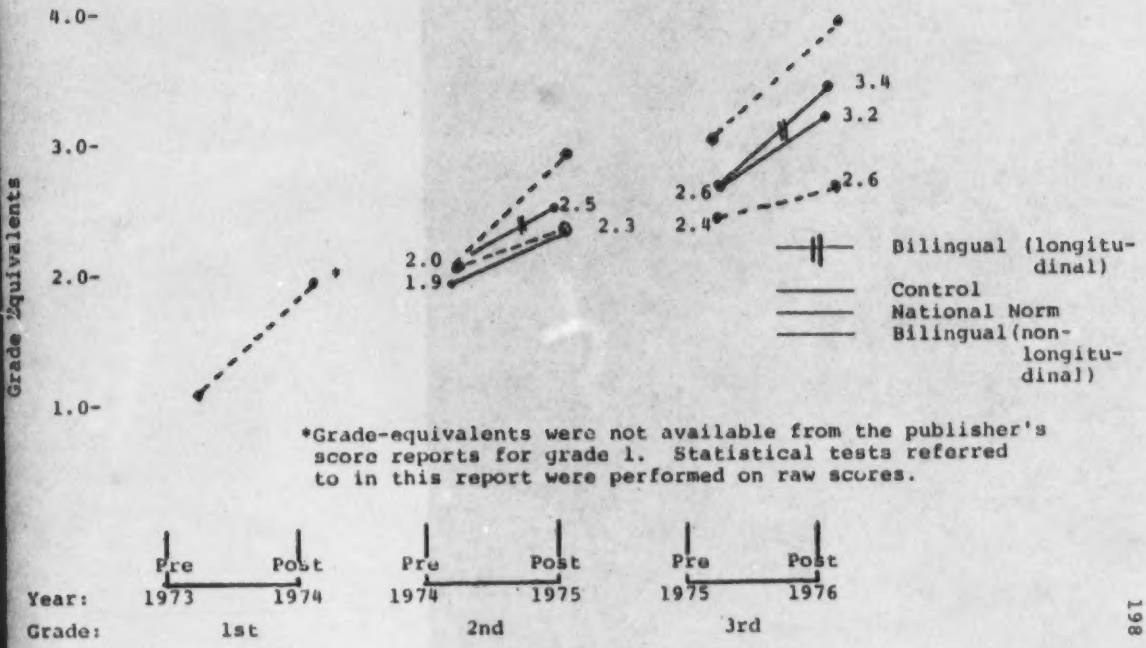
SEVERE OVERAGENESS
PERCENT OF PUPILS TWO OR MORE YEARS OVERAGE, BY GRADE, STATE, AND ETHNICITY

Ethnic Group	Grade	Arizona	California	Colorado	New Mexico	Texas	Total
Anglo	1	0.7	0.9	0.7	0.4	0.7	0.8
	4	1.2	0.7	0.5	2.7	1.3	1.0
	8	1.1	0.8	0.6	2.3	2.1	1.2
	12	1.4	0.1	2.5	1.7	4.9	1.4
Mexican-American	1	2.5	1.7	2.1	1.7	6.6	3.5
	4	5.6	2.1	2.3	5.5	12.0	6.9
	8	11.8	2.3	1.5	10.8	16.5	9.4
	12	10.9	2.3	3.9	6.8	10.5	5.5
Black	1	1.3	0.7	0.9	---	3.2	1.2
	4	1.3	0.7	0.7	2.0	6.1	1.8
	8	3.0	0.3	---	1.8	6.7	2.1
	12	5.5	1.9	5.4	9.1	4.6	4.4

(From Report of the United States Commission on Civil Rights, October 1971)

APPENDIX E

Figure 1: Longitudinal Group A
3 Year Group: Total Reading



*Grade-equivalents were not available from the publisher's score reports for grade 1. Statistical tests referred to in this report were performed on raw scores.

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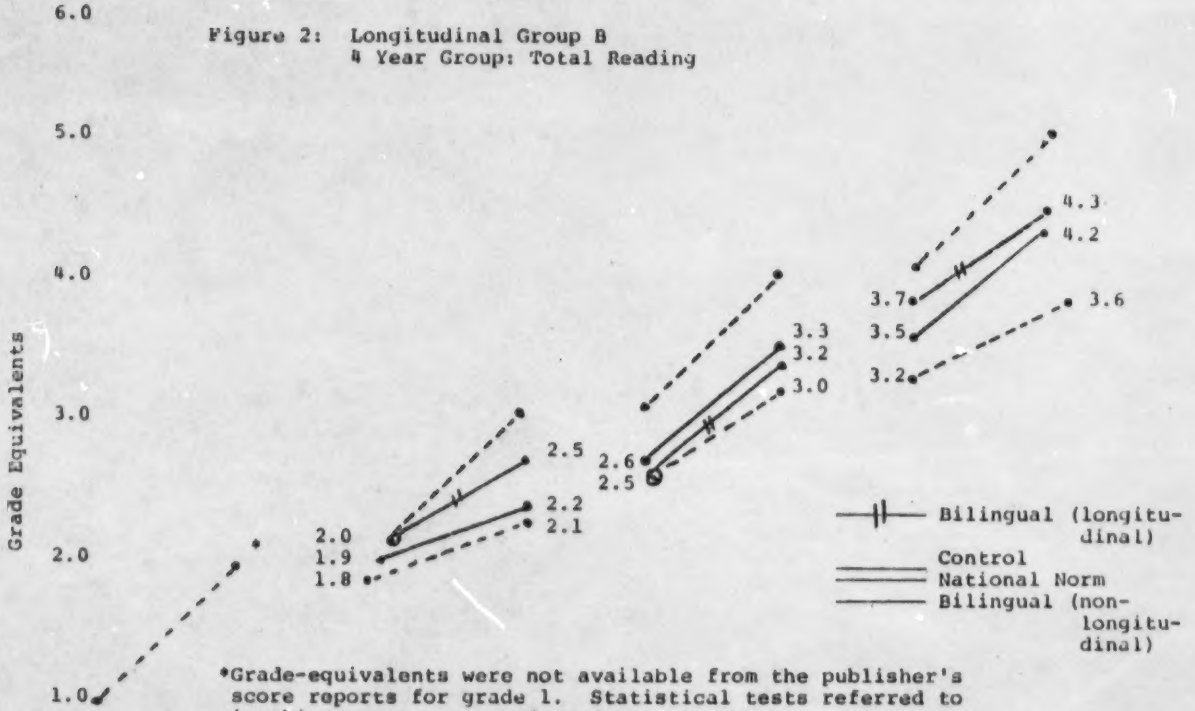
Figure 2: Longitudinal Group B
4 Year Group: Total Reading



*Grade-equivalents were not available from the publisher's score reports for grade 1. Statistical tests referred to in this report were performed on raw scores.

	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Year:	1972	1973	1973	1974	1974	1975	1975	1976
Grade:	1st		2nd		3rd		4th	

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Figure 3: Longitudinal Group C
4 Year Group: Total Reading

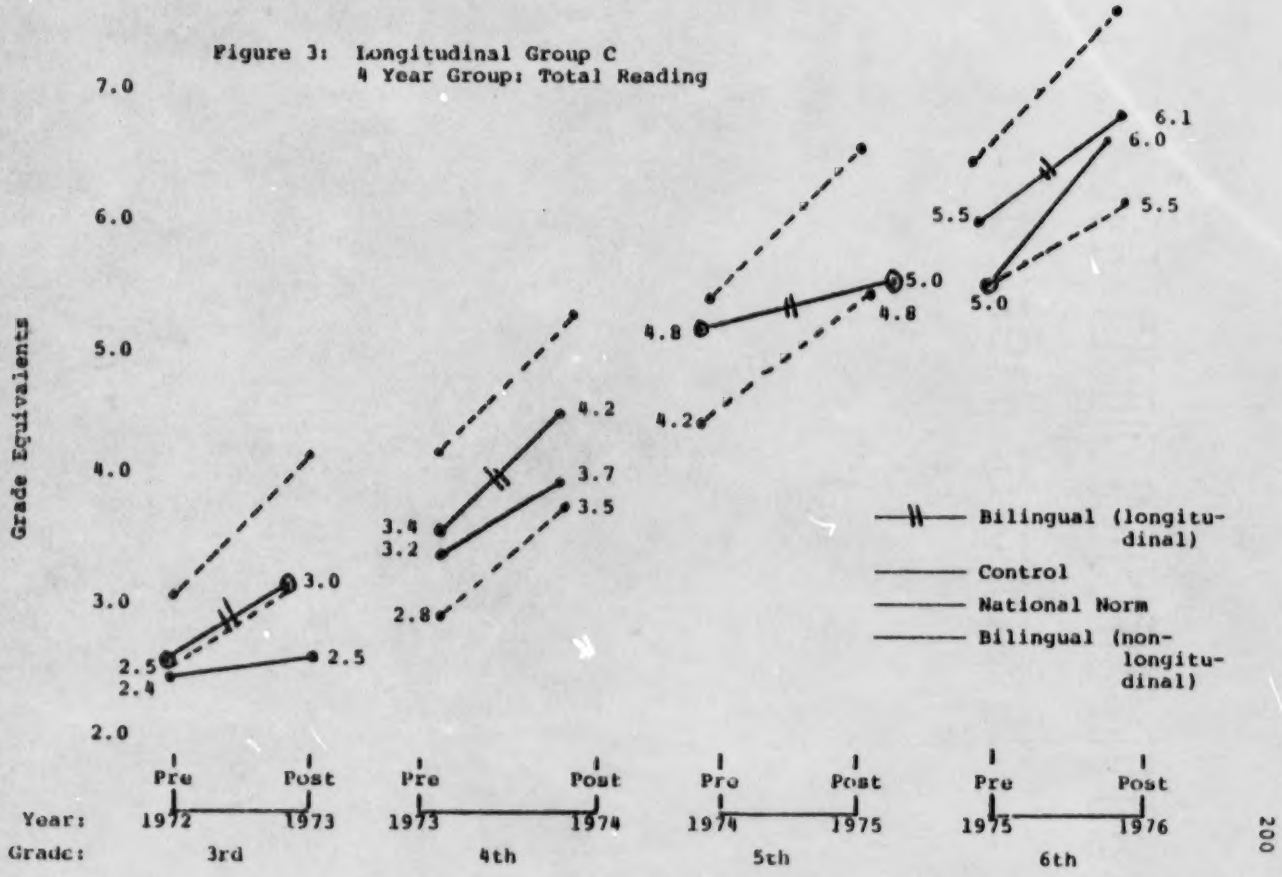
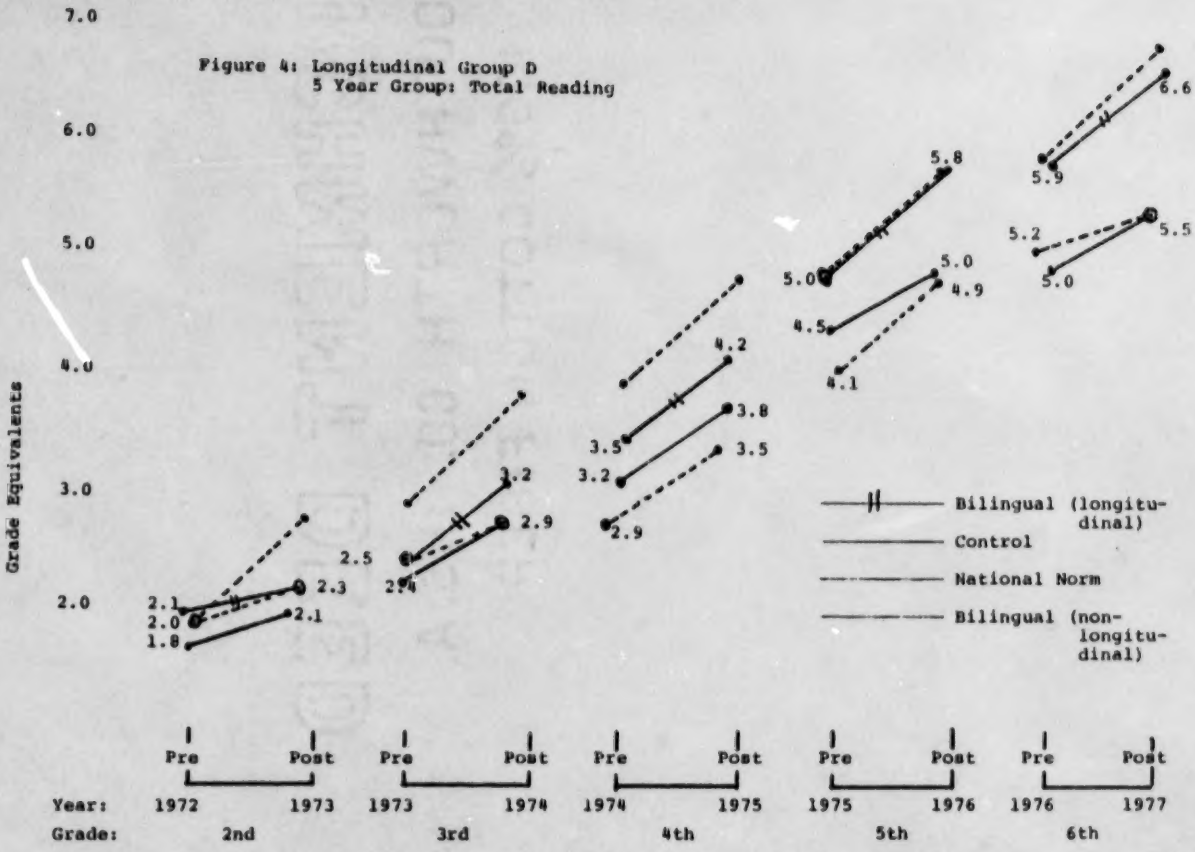


Figure 4: Longitudinal Group D
5 Year Group: Total Reading



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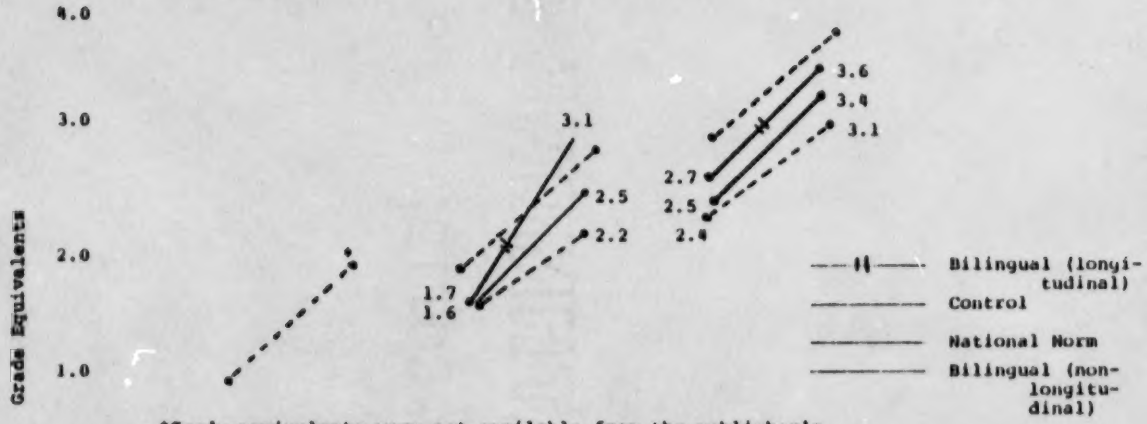
APPENDIX F

Figure 5: Longitudinal Group A
3 Year Group: Total Math



*Grade-equivalents were not available from the publisher's score reports for grade 1. Statistical tests referred to in this report were performed on raw scores

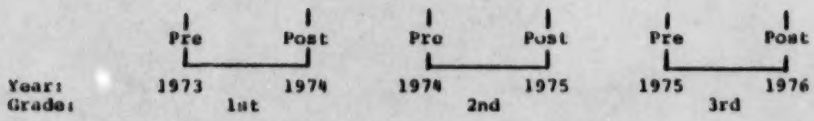


Figure 6: Longitudinal Group B
4 Year Group: Total Math

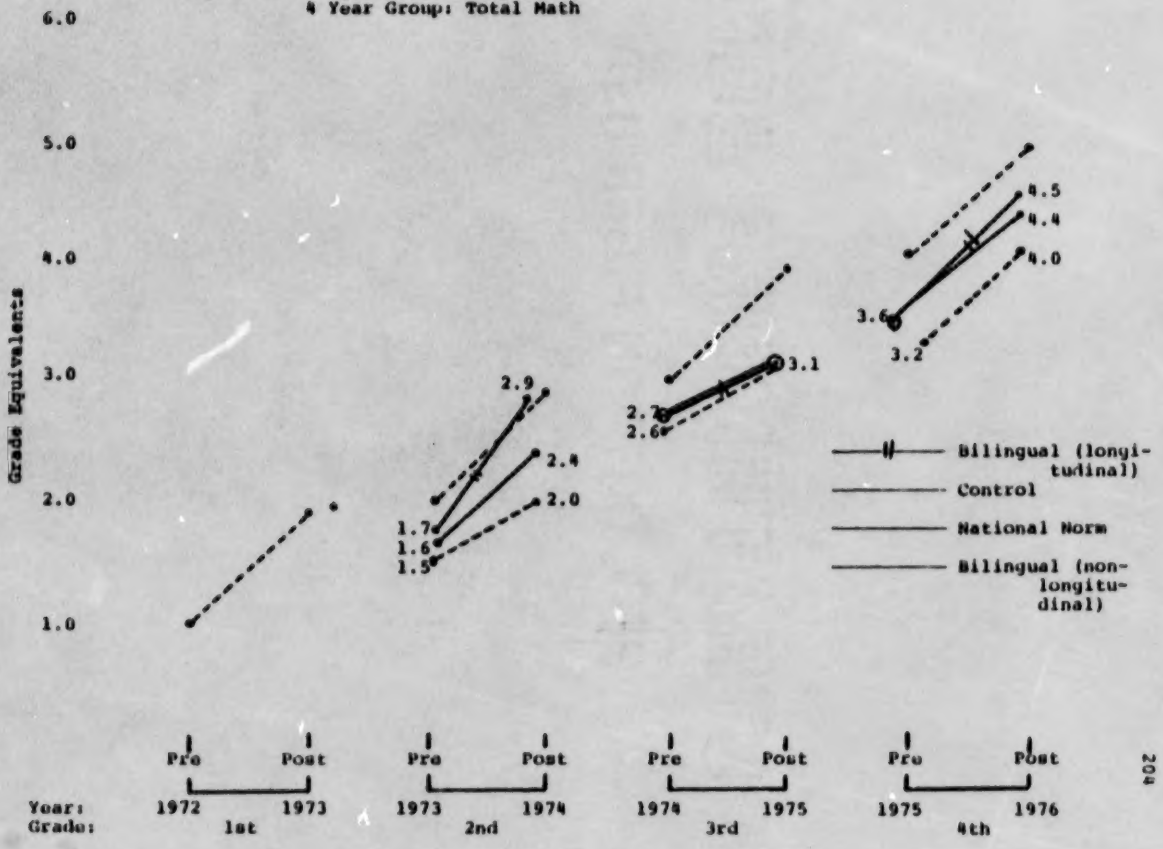


Figure 7: Longitudinal Group C
4 Year Group: Total Math

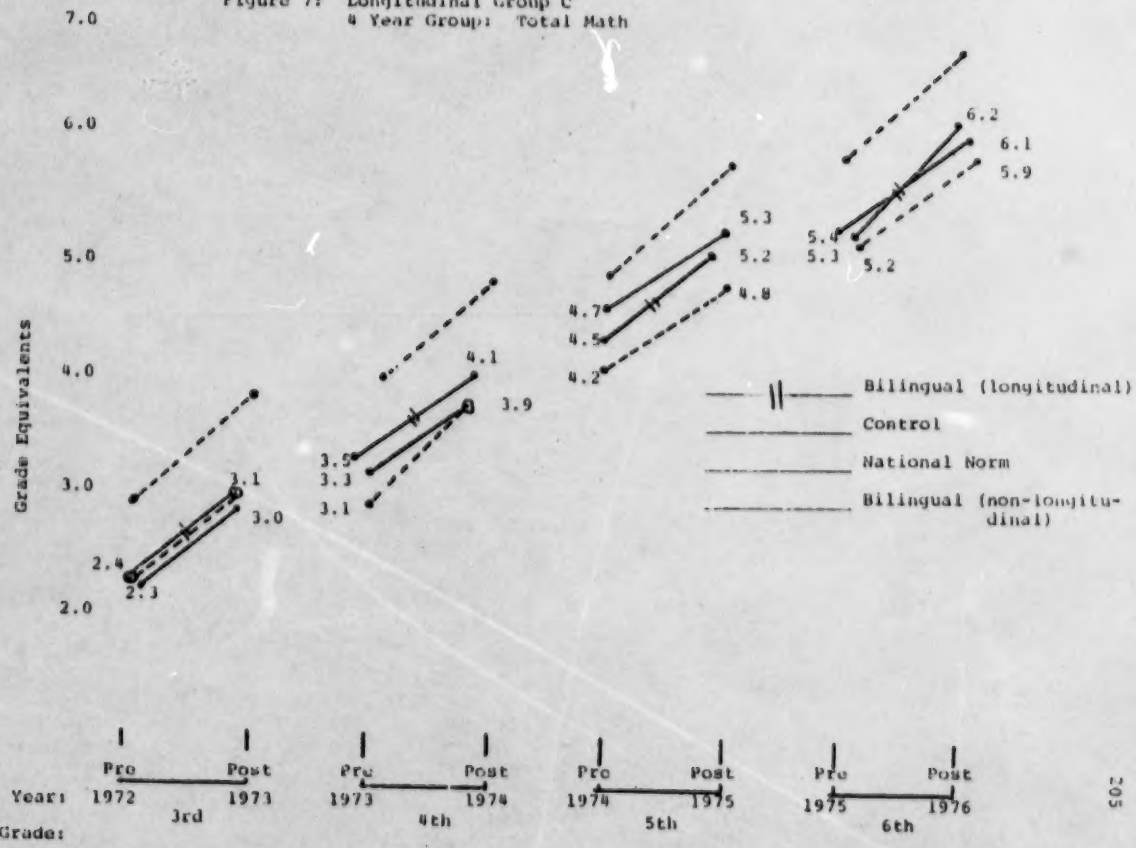
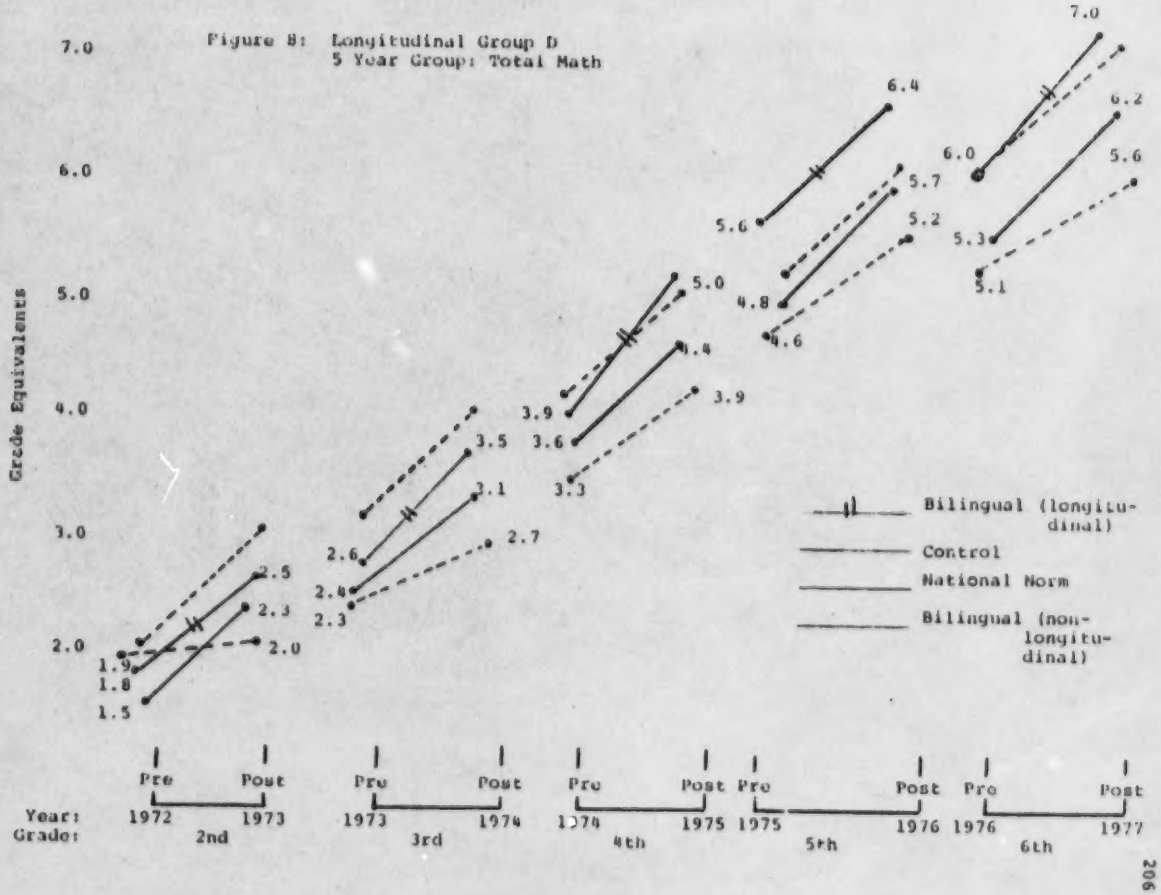


Figure 8: Longitudinal Group D
5 Year Group: Total Math



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APPENDIX G

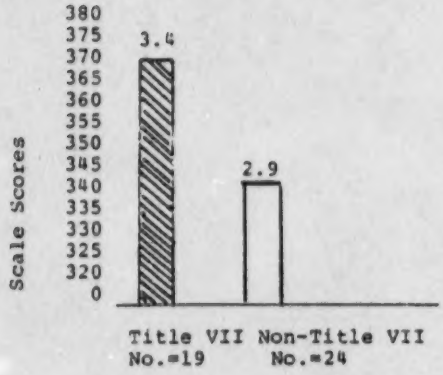

Figure 1. Spring reading scores of 3rd grade LES students in Title VII and non-Title VII classes 1975-1976

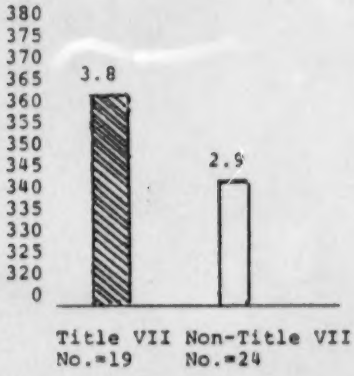

Figure 2. Spring math scores of 3rd grade LES students of Title VII and non-Title VII classes 1975-1976

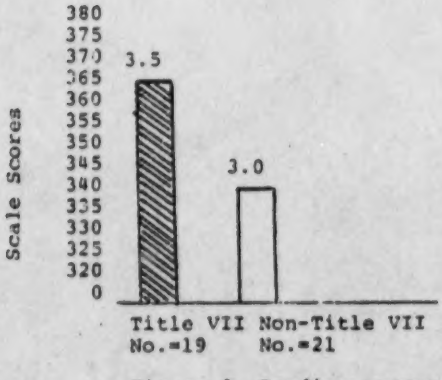

Figure 3. Reading scores for 1976-1977.

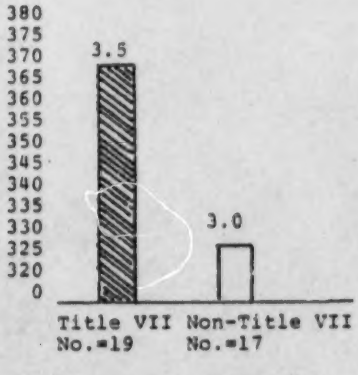

Figure 4. Math scores for 1976-1977.

APPENDIX H

Table 12

COMPARISON OF READING AND MATH RAW SCORES OF 3RD GRADE LES STUDENTS ENROLLED FOR 3 YEARS IN TITLE VII AND NON-TITLE VII CLASSES FOR 1975-1976 AND 1976-1977

Source		Number of Students	Mean	Standard Deviation	Degrees of Freedom	t
			1975-1976			
Reading:	Title VII	19	42.63	18.50	41	1.74*
	Non-Title VII	24	33.83	14.65		
Math:	Title VII	12	68.67	11.38	36	4.72**
	Non-Title VII	26	44.81	19.02		
			1976-1977			
Reading:	Title VII	19	44.47	14.13	38	1.99*
	Non-Title VII	21	35.00	16.29		
Math:	Title VII	19	66.42	10.81	34	1.93*
	Non-Title VII	17	54.29	24.77		

* $p < .05$

** $p < .0005$

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APPENDIX I

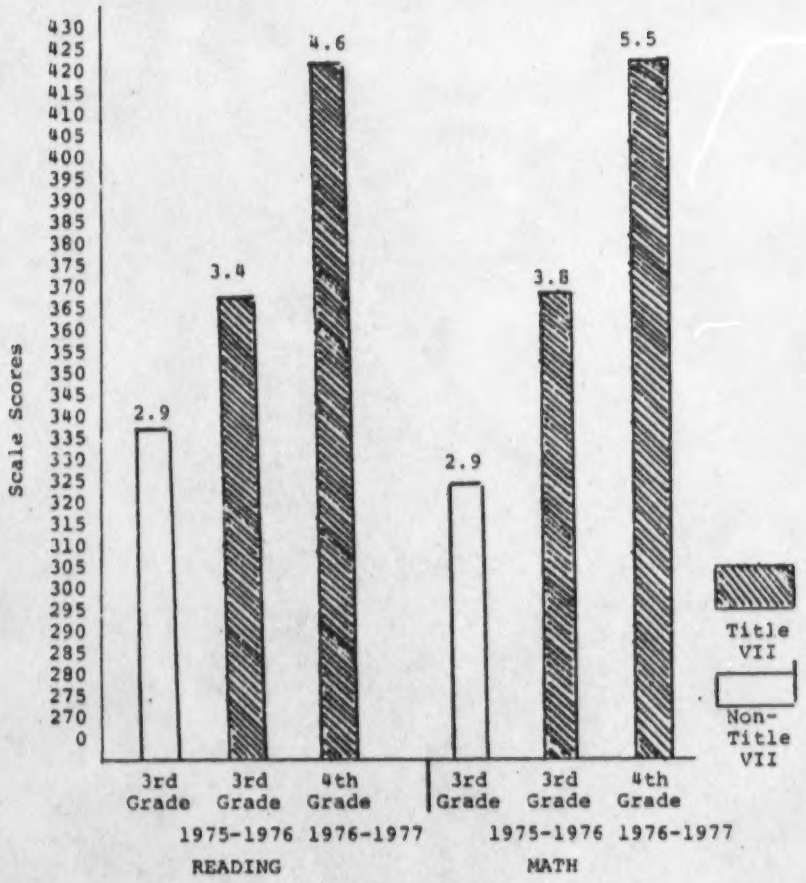


Figure 2. Spring reading and math scores of LES students in Title VII and non-Title VII classes for 1975-1976 and 1976-1977.

APPENDIX J

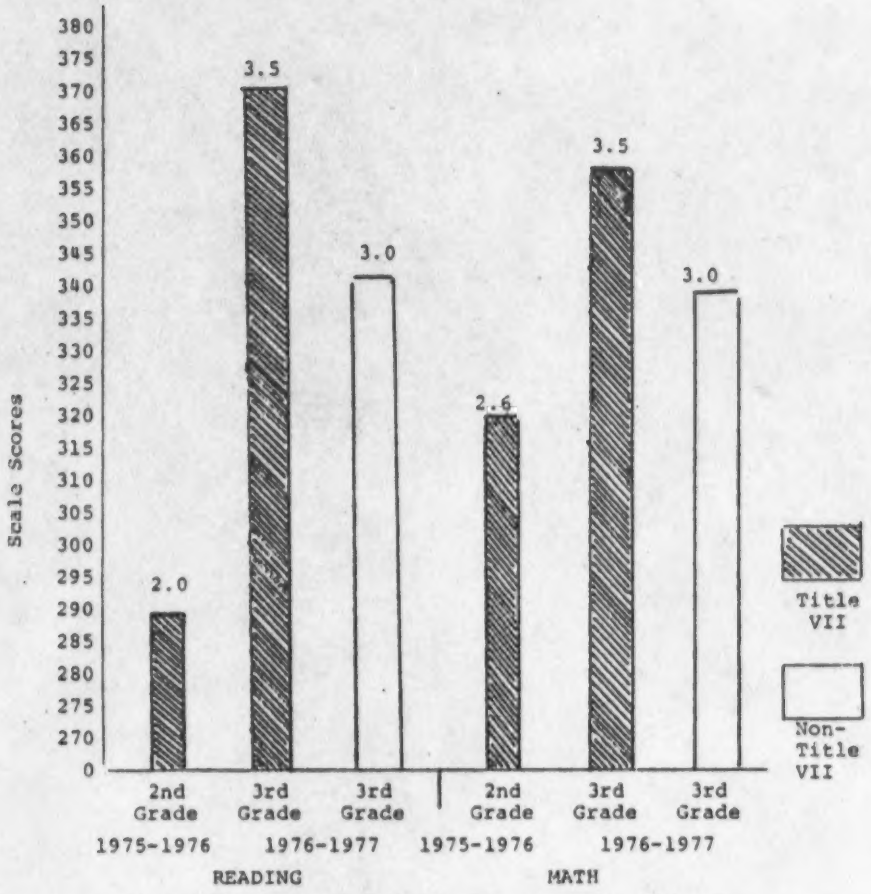


Figure 1. Spring reading and math scores of LES students in Title VII and non-Title VII classes for 1975-1976 and 1976-1977.

APPENDIX K

TABLE 1a. ESTIMATED NUMBERS OF PERSONS WITH NON-ENGLISH -LANGUAGE BACKGROUNDS IN THE UNITED STATES, BY LANGUAGE AND AGE GROUP: SPRING 1976

Non-English -language background	Total	Age 5 and Under	Age 6 to 18	Age 19 and Older
Total	27,985,000	2,224,000	5,032,000	20,730,000
Selected European languages:	22,475,000	1,766,000	4,263,000	16,446,000
French	1,932,000	83,000	303,000	1,546,000
German	2,735,000	70,000	286,000	2,378,000
Greek	542,000	41,000	88,000	412,000
Italian	2,931,000	99,000	296,000	2,536,000
Polish	1,498,000	24,000	87,000	1,387,000
Portuguese	489,000	29,000	77,000	383,000
Russian	228,000	(*)	17,000	209,000
Scandinavian languages	661,000	(*)	29,000	624,000
Spanish	10,609,000	1,384,000	3,022,000	6,203,000
Yiddish	852,000	26,000	58,000	768,000
Selected Asian languages:	1,842,000	220,000	301,000	1,321,000
Chinese	537,000	57,000	81,000	399,000
Filipino languages	522,000	69,000	103,000	351,000
Japanese	439,000	30,000	40,000	370,000
Korean	194,000	35,000	31,000	128,000
Vietnamese	150,000	30,000	46,000	74,000
Arabic	190,000	26,000	22,000	143,000
Navajo	159,000	22,000	54,000	83,000
Other languages	3,319,000	191,000	391,000	2,738,000

*Less than an estimated 15,000 persons.
Note: Detail may not add to total shown because of rounding.
Source: Survey of Income and Education, conducted by the U.S. Bureau of the Census spring 1976.

APPENDIX L

COOPERATION BOARD AND EXPERIMENT

The apparatus consisted of a board 18 in. square with a small eyelet screwed into each corner. This enabled a child stationed on each corner of the board to pull a string through the eyelet toward himself. Four strings were fastened to a common object in the center of the board. Because the string was strung through the eyelets, each child could pull the object in only one direction--toward himself. Thus the children had to cooperate in order to move the object to any position on the board that was not in a direct line from its starting position in the center to one of the corners. The object being pulled was a metal weight which served as support for a ball point pen filler. The pen protruded downward through a hole in the center of the weight and constant downward pressure was maintained by an elastic band. Thus, by covering the board with a piece of paper for each trial, a permanent written record of Ss' responses was obtained. Fig. 1 illustrates the fundamental aspects of the experimental situation.

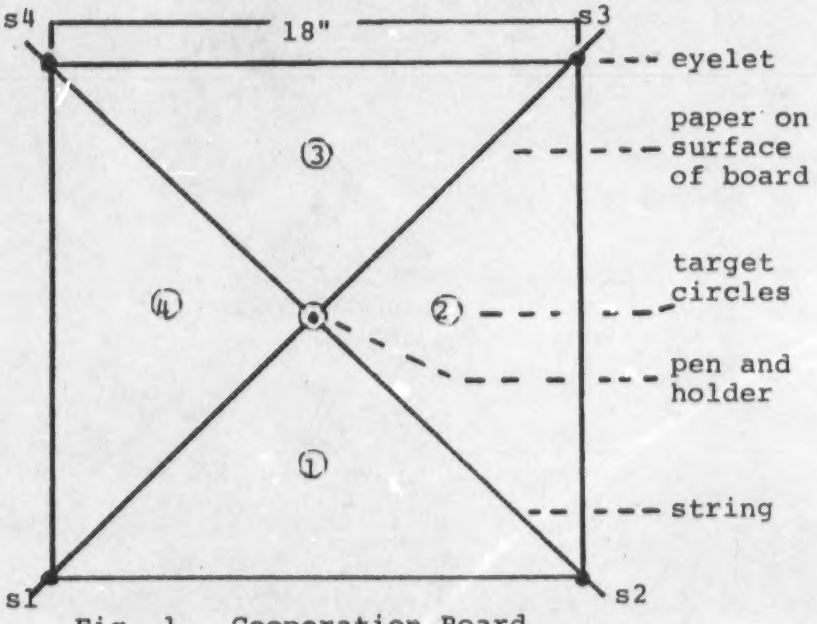
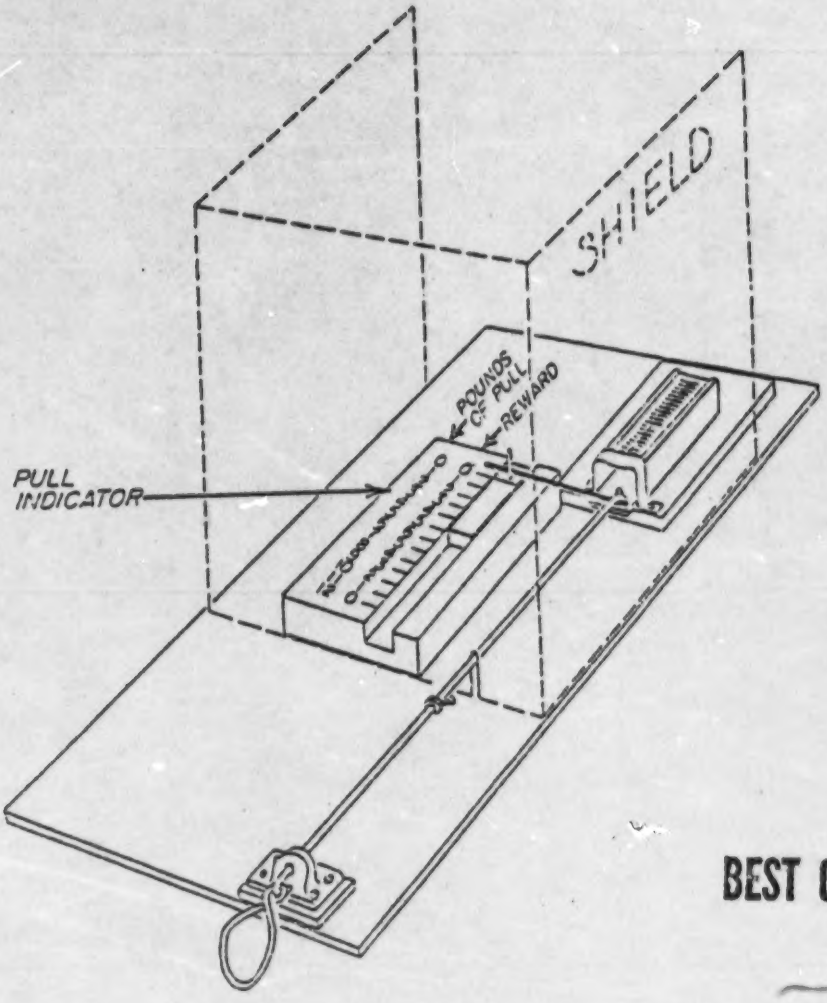


Fig. 1. Cooperation Board

Ss were instructed to move the pen by pulling their strings in such a way as to draw a line over circles one-two-three-four, in that order. They were also told that each time all four circles were crossed in that order each child would receive one piece of candy. Thus no child was rewarded independently of the rest of the group. Five 1-min. trials were given under this condition. The instructions were then changed to allow for competitive responding. Each child's name was written on one of the circles. Ss were then told that they would be given a piece of candy as an individual for each time the pen crossed their circle. Five 1-min. trials were also given under this condition. Two hundred and eighty children took part in the experiment. These were 30 groups of 4 from the urban middle class, 30 groups from the rural sample, 10 groups of the urban poor girls. The two larger samples were also balanced for sex. Each consisted of 10 groups of 4 boys, 10 groups of 4 girls, and 10 groups of 2 boys and 2 girls.

APPENDIX M

ASSERTIVENESS PULL SCALE



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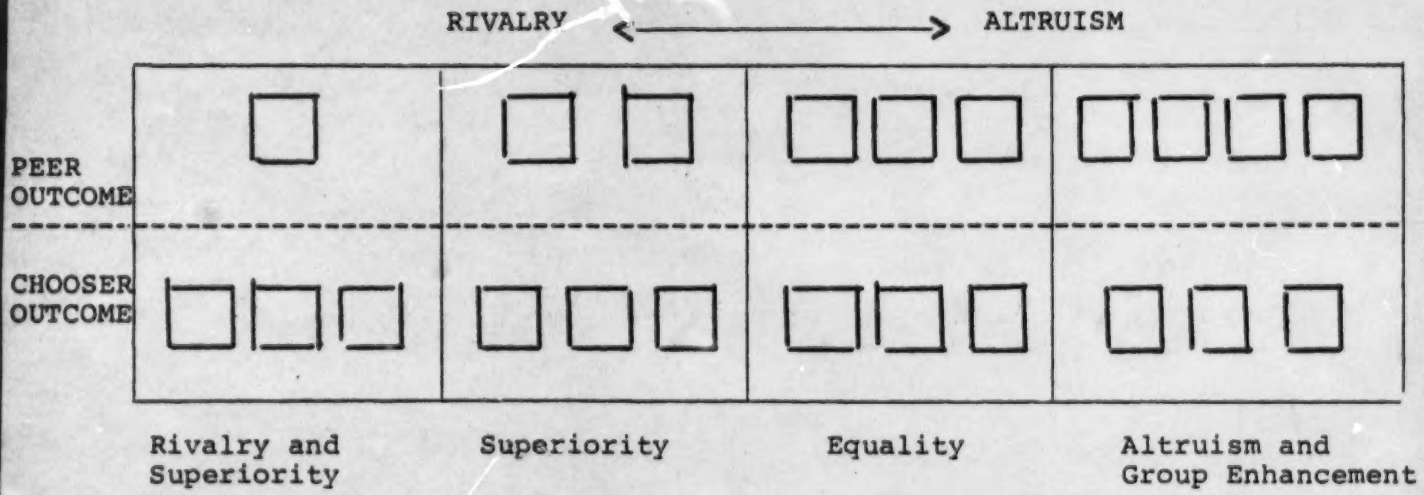
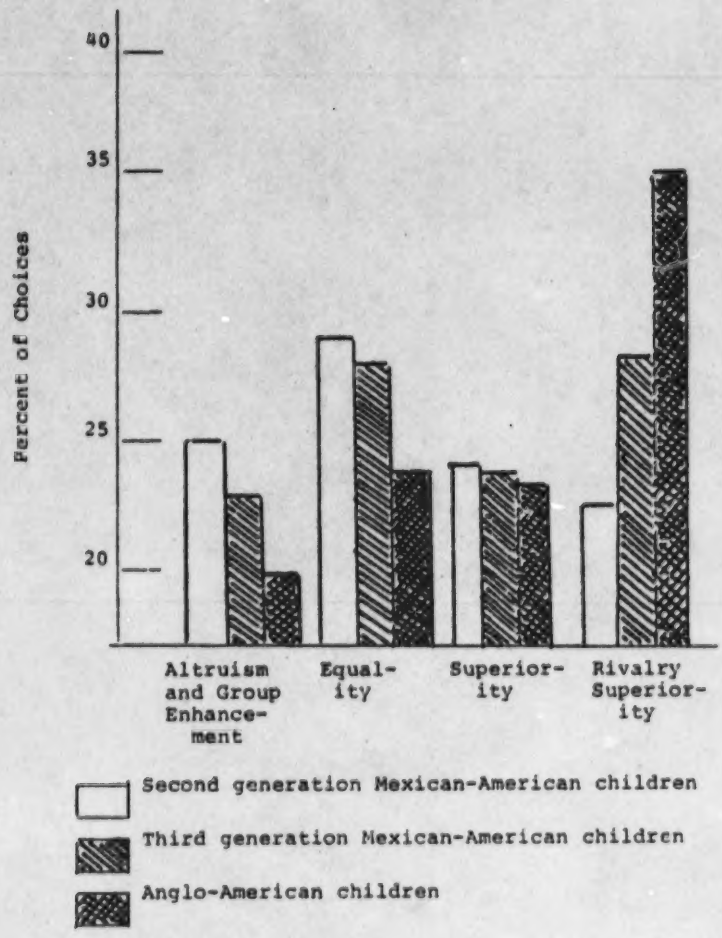
APPENDIX N

Figure 1. The Social Behavior Scale



APPENDIX O

DEVELOPMENT OF PROSOCIAL AND COMPETITIVE BEHAVIOR IN TWO GENERATIONS



APPENDIX P

DEVELOPMENT OF PROSOCIAL AND COMPETITIVE BEHAVIORS

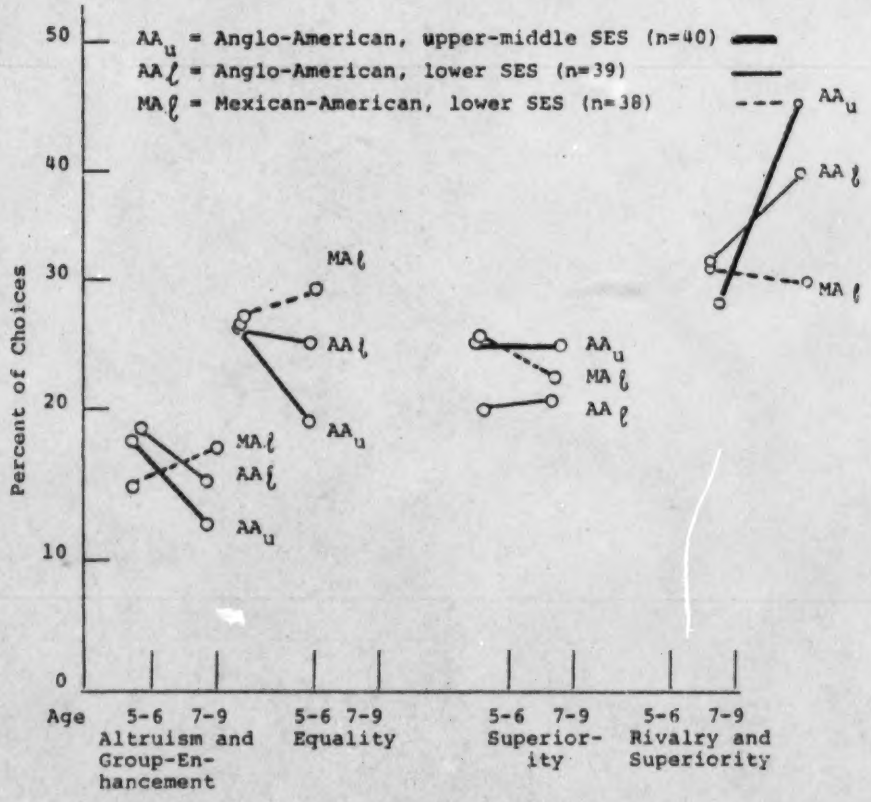


Figure 3. Percent of Altruism/Group-Enhancement, Equality, Superiority, and Rivalry/Superiority (Group x Age, Sex, Condition, Trials and Card Form Collapsed).

APPENDIX Q

OBSERVATION CHECKLIST

Teacher Role Checklist

The first step in monitoring classroom processes is to identify the teacher behaviors necessary to implement each goal structure. In Chapter 5 we began a discussion of such behaviors. The description of the teacher's role in Chapter 7 provides additional help in defining what the teacher should do to implement successfully each goal structure. The following checklists provide the basis for verifying that you have gone through the necessary steps to set up successfully the goal structure best suited for your instructional purposes. There is a separate checklist for each goal structure. After implementing a goal structure for a specific lesson, it may be helpful to go through the appropriate checklist and make notes on how students are behaving. Such review will help increase your skill in implementing the three goal structures.

Teacher Role Checklist for Cooperative Instruction

1. What are the desired outcomes for the problem-solving activity?
   a. Cognitive outcomes:

b. Affective outcomes:

2. Is the classroom arranged so that students:

_____ are clustered together in groups and focused on each other and on shared instructional materials?

_____ have access to each other, can approach each other, and can talk with each other?

_____ share materials such as books and equipment with little duplication (unless the subject matter requires it) of materials among group members?

3. Have you effectively communicated to the students that:

_____ the instructional goal is a group goal (each group produces a single product)?

_____ each group will be rewarded on the basis of quality or quantity of group output according to a fixed set of standards?

4. Have you effectively communicated the expected patterns of student interaction? Are students aware that they should:

_____ interact with each other?

_____ share ideas and materials and help each other in any way possible?

_____ work in groups, pool their information and resources, divide up the task so that different students do different parts when it is desirable, and integrate each member's work into a group product?

_____ perceive teacher praise, support, or criticism as a reflection on the whole group, not just on one or more members?

_____ demonstrate cooperative skills by being attentive to the other members of their group, accepting their comments and actions with expressions of friendliness and warmth, genuine attempts to understand, encouragement for further contributions, and clarification of points of view?

_____ offer suggestions to move the group towards its goal, make direct verbal attempts to influence the group to move towards goal accomplishment, support efforts to accomplish goals by clarifying, questioning, restating, and summarizing, and use plural pronouns such as "we", "us", and "our"?

_____ seek help and assistance from group members, not the teacher?

5. Have you effectively communicated the expected patterns of teacher-student interaction? Do students know that the teacher:

_____ wants them to work with other students in a group to create a group product and will evaluate them on the basis of how their group product matches a fixed set of standards?

_____ will observe groups, serve as a consultant to stimulate thinking, will not give the solution to the problem, will provide assistance to the group as a whole, and will give emotional support for group effort?

_____ will praise and support students working together for goal accomplishment, sharing ideas and materials, dividing up the work, and utilizing each other's resources to combine their efforts?

Teacher Role Checklist for Individualized Instruction

1. What are the desired outcomes for the activity of learning specific knowledge and noncomplex skills?

   a. Cognitive outcomes:

   b. Affective outcomes:

2. Is the classroom arranged so that students:

_____ are isolated at separate desks or by a seating arrangement that separates them as much as possible?

_____ are arranged to do their own work without approaching or talking with each other?

_____ have individual sets of self-contained materials?

3. Have you effectively communicated to students that:

_____ the instructional goal is an individual goal (each student masters the material on his own)?

_____ each student will be rewarded on the basis of how his work meets a fixed set of standards for quality and quantity?

4. Have you effectively communicated the expected patterns of student-student interaction? Do students know that they:

_____ should not interact with each other?

_____ should work on the assignment alone, trying to ignore completely the other students?

_____ should perceive teacher praise, support, or criticism of another student as totally irrelevant to their own mastery of the assigned material?

_____ should ignore comments from other students?

_____ should go to the teacher for all help and assistance needed?

5. Have you effectively communicated the expected patterns of teacher-student interaction? Do students know that the teacher:

_____ wants them to work by themselves and to master the assigned material without paying attention to other students, and will evaluate them on the basis of how their efforts match a fixed set of standards?

_____ will interact with each student individually, setting up learning contracts, viewing student progress, providing assistance, giving emotional support for effort, and answering questions individually?

_____ will praise and support students for working alone and ignoring other students?

Teacher Role Checklist for Competitive Instruction

1. What are the desired outcomes for the drill activity?

   a. Cognitive outcomes:

   b. Affective outcomes:

2. Is the classroom arranged so that students:

   _____ are clustered together, working on their own, but able to monitor the progress of their competitors?

   _____ have access to each other only if (1) it is required by the nature of the competition or (2) to know whether they are ahead or behind the others?

   _____ have an individual set of self-contained materials?

3. Have you effectively communicated to students that:

   _____ the instructional goal is an individual goal (each student produces her own product)?

   _____ each student will be rewarded on the basis of how her work compares to the work of the other students in the cluster?

4. Have you effectively communicated the expected patterns of student-student interaction? Do students know that they should:

   _____ interact only to check the progress of other students?

   _____ work on the assignment alone, trying to do the task better, faster, and more completely than the other students?

_____ perceive teacher praise or support of another student's work as an indication that their own work is inferior and teacher criticism of another student's work as an indication that their own work is superior?

_____ ignore comments from other students?

_____ go to the teacher for all help and assistance needed?

5. Have you effectively communicated the expected pattern of teacher-student interaction? Do students know that the teacher:

_____ wants each student to try to do better on the assignment than the other students and will evaluate work on the basis of how it compares with the work of other students?

_____ will interact with each cluster of students--clarifying rules, clarifying the task without giving one student more help than another, and often making clarifications to the entire class?

_____ will praise and support students working alone and trying to do better, faster, and more work than any other student in the cluster or classroom?

Structured Observation Schedules

While students are working on their learning tasks, the teacher or an observer may monitor the situation through the use of the observation schedules given below. There will be many times when you are too busy to make the observations you need, so it is helpful to train students, an aide, the principal (yes, we did say principal), or another teacher to use the schedules. The appropriate procedure follows.

1. Allow a few minutes for the activity to get started. Select the time you are going to allow between observations (five minutes, seven minutes, or ten minutes).
2. Go through the questions at a steady pace, checking the appropriate box for each question and writing in comments freely, including notes on overheard conversations and student behaviors that are representative and interesting. Don't let the commenting keep you from completing the schedules. Five minutes should be considered enough time for completing all three schedules. You may find yourself distracted by the behavior of one or more students. Keep in mind that your primary target is the behavior of the majority of the students, and notes on divergent behaviors

should be clearly labeled as such.

3. When you have completed the schedules, wait for the beginning of the next time period and then repeat the procedure. Many of the observations may not have changed and can just be checked again. You should get through the schedules several times during each observation period.
4. When the observation period is over, add the number of checks indicating cooperative, competitive, or individualized instruction. Then convert to percentage.

Frequency of Use of Each Goal Structure

Module	Monday	Tuesday	Wednesday	Thursday	Friday
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

In the table above, mark the subject area focused upon (reading, science, etc.) and the goal structure used. At the end of the week, it will be possible to determine what percentage of the time each type of goal structure was used; the time, or period, during the day when certain goal structures were used; and which goal structures were used with certain instructional tasks.

It is important that you as the teacher get considerable experience in using these observation schedules. As you become skillful in observing classroom processes, you will become more aware of the different aspects of the goal structures and will be able to watch students more closely and pick up appropriate comments and behavior. You will also be better able to train other observers for your classroom. With frequent use of the schedules, you will be able to observe classroom activities automatically while at the same time interacting with students.

Classroom Organization Observation Instrument

The observation checklist is to help you observe the classroom organization relevant to cooperative, competitive, and individualistic learning. For each question note the alternative that best describes the existing

classroom organization. Then put an x in the appropriate box of the alternative selected. Each box represents a new observation (observations can be made every five, seven, or ten minutes). Whenever possible, write in comments about the situation, but don't let the commenting keep you from completing the checklist. Do not be distracted by incongruencies in the classroom organization; keep in mind that your primary target is to observe the overall classroom organization.

1. How would you describe the learning situation?

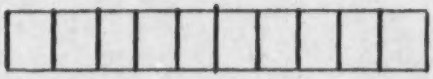
a. Problem solving

b. Specific factual knowledge or noncomplex skill development

c. Drill

2. How are students arranged for the learning task?

a. Students are clustered together in groups so that they can focus on each other and on shared instructional materials.



b. Students are isolated from each other through separate desks or by a seating arrangement that separates them as much as possible so that they can work on their own set of learning materials without distractions.

c. Students are clustered together so that they are able to work alone but can still monitor the progress of the others.

d. There is no set arrangement; students are clustered together or are isolated at tables or desks; students have a variety of focuses.

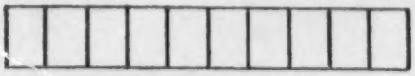
3. How accessible are students to each other during the learning task? The room is organized so that:

a. Students have access to each other, can approach each other, and can talk with each other.

b. Students are arranged so they can do their own work without approaching or talking with each other.

c. Students have access to each other only if (1) it is required by the competition or (2) to check to see whether they are ahead or behind the others.

4. How accessible are the materials needed for the learning task? The room is organized so that:



a. Students share materials such as books and equipment with little duplication of materials among group members (unless the subject matter requires it).

b. Each student has a self-contained set of materials.

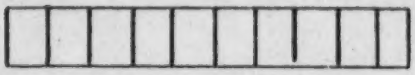
5. Diagram the classroom, indicating the arrangement of students, their access to materials, and their interaction patterns.

Student-Student Interaction

This observation checklist is to help you observe student-student interaction relevant to cooperative, competitive, and individualistic learning. For each question note the alternative that best describes the present interaction among students. Then put an x in the appropriate box of the alternative selected. Each box represents a new observation (observations can be made every five, seven, or ten minutes). Whenever possible, write in comments about the situation, but don't let the commenting keep you from completing the checklist. Do not be distracted by the behavior of individual students; keep

in mind that your primary target to observe is the behavior of the majority of the students.

1. Are most students interacting with each other?

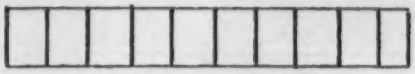


a. Many students are interacting with each other.

b. Almost no student interaction is taking place.

c. Only the checking of other students' progress is taking place.

2. What type of interaction is taking place?



a. Students are sharing ideas and materials.

b. Students are working on the task alone, trying to ignore other students completely.

c. Students are working on the task alone, but they check to see where other students are on the assignment; there is no copying, sharing, or helping.

d. Most students are interacting with each other in a social way, ignoring the task to be completed.

3. What method are students using to accomplish the assigned task?

a. Students are working in groups, pooling their information and resources; where desirable they are dividing up the work so that different students do different parts, and they are integrating each student's work into a group product.

b. Students are working along, trying to complete the task and ignoring other students.

c. Students are working alone, each trying to do the task better, faster, and more completely than the other students.

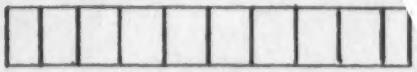
4. What is the reaction of students when one member of their cluster receives praise, support, or criticism from the teacher?

a. Students' verbal and nonverbal behaviors indicate that they perceive teacher praise, support, or criticism as a reflection on the whole group, not on just one or two members.

b. Students' verbal and nonverbal behaviors indicate that they perceive teacher praise, support, or criticism of another student as totally irrelevant to their own accomplishment.

c. Students' verbal and nonverbal behaviors indicate that they perceive teacher praise of another student as an indication that their own work is inferior and perceive teacher criticism of another student as an indication that their own work is superior.

5. How attentive are students to fellow students?



a. Students are attentive to other members of their group and accept their comments and actions with expressions of friendliness and warmth, genuine attempts to understand, encouragement for further contributions, and clarification of points of view.

b. Students attempt to ignore comments from other students.

6. Are the students group oriented or self-oriented in achieving task?

a. Students offer suggestions to move the group toward its goal, make direct verbal attempts to influence the group to move toward goal accomplishment, support efforts to accomplish goals by clarifying,

questioning, restating, summarizing, use "we", "us", "our", and other plural pronouns.

b. Students are intent on achieving task for themselves, ignoring other students.

c. Students are intent on achieving task for themselves, checking progress of other students so that they can do better.

7. From whom do the students seek help and assistance?

a. Students seek help and assistance from each other.

b. Students go to the teacher for all assistance and help.

Teacher-Student Interaction

This observation checklist is to help you observe teacher-student interaction relevant to cooperative, competitive, and individualistic learning. For each question note the alternative which best describes the present interaction between the teacher and the students. Then put an x in the appropriate box of the alternative

selected. Each box represents a new observation (observations can be made every five, seven, or ten minutes). Whenever possible, write in comments about the situation, but don't let the commenting keep you from completing the checklist. Do not be distracted by unusual teacher behaviors; keep in mind that your primary target is to observe what the teacher is doing a majority of the time with a majority of the students.

1. Has the teacher communicated to the students that:

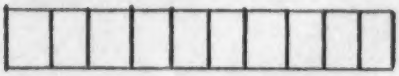
a. They are supposed to work with other students in a partnership to create a single group product and that they will be evaluated on the basis of how the group product matches a fixed set of standards?

b. They are supposed to work by themselves to master the assigned material without paying any attention to other students, and that they will be evaluated on the basis of how their efforts match a fixed set of standards?

c. They are supposed to work by themselves to do better on the assignment than other students and that they will be evaluated on

the basis of how their work compares to the work of the other students?

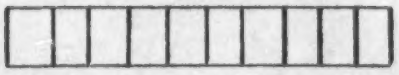
2. What is the pattern of teacher-student interaction?



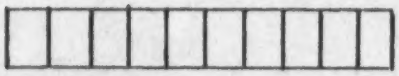
a. Teacher observes groups, serves as a consultant to stimulate thinking of group members, will not give the solution to a problem, provides assistance to the group as a whole, gives emotional support for group effort.

b. Teacher interacts with each student individually, setting up learning contracts, viewing progress, providing assistance, giving emotional support for effort, answering questions individually.

c. Teacher interacts with each cluster of students--clarifying rules, clarifying task without giving one student more help than another, settling disputes, and often making clarifications to entire class.

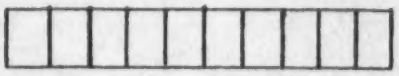


d. Teacher interacts with no one; teacher is working alone at his desk, out of the room, observing at a distance.

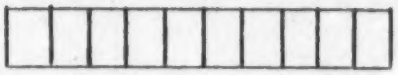


e. Teacher interacts with entire class through lecturing, answering individual questions in front of entire class, giving instructions to entire class.

3. What student behaviors does the teacher encourage by praise, criticism, and example?



a. Teacher praises and supports students who work together for goal accomplishment by sharing ideas and resources, dividing up the work when it is appropriate, and utilizing each other's resources to combine their efforts.



b. Teacher praises and supports students for working alone and ignoring other students.

c. Teacher praises and supports students working alone and trying to do better, faster, and more work than any other student in the cluster or classroom.

After you use the observation schedules a few times, you may not need the extensive explanation contained in

the original instruments, and you may be able to get by with the short form.